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APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/619,411	07/19/2000	Jeffrey Lynn Eakin	108.0001

Peter H Priest
Law Offices of Peter H Priest
529 Dogwood Drive
Chapel Hill, NC 27516

FORMALITIES LETTER



OC000000005394773

Date Mailed: 09/13/2000

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 130.

*A copy of this notice **MUST** be returned with the reply.*



Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 3 - OFFICE COPY

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QY 361 RGEICELLETTSSESNLEDSIAVGPVPEMAQGEAOWFOEAKNLNEQLRAAYTSASFRHMS 420
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RESULT 2
US-09-705-872-3
; Sequence 3, Application US/09705872
; Patent No. 6617429
; GENERAL INFORMATION:
; APPLICANT: Joh-B IKEDA
; APPLICANT: Kenji YAMAMOTO
; TITLE OF INVENTION: APOPTOSIS INHIBITORY PROTEIN, GENE ENCODING THE PROTEIN
; FILE REFERENCE: 2000-1110/LC/00653
; CURRENT APPLICATION NUMBER: US/09/705,872
; PRIOR FILING DATE: 2000-11-06
; PRIOR APPLICATION NUMBER: 09/239,797
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 1295
; TYPE: prt
; ORGANISM: Homo sapiens
US-09-705-872-3

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Query Match          91.6%; Score 6691; DB 4; Length 1295;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1282; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

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RESULT 3
US-08-836-134-2
; Sequence 2, Application US/08836134A
; Patent No. 6020127
; GENERAL INFORMATION:
; APPLICANT: Mackenzie, Alex E.
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mahadevan, Mani S.
; APPLICANT: McLean, Michael
; APPLICANT: Roy, Natalie
; APPLICANT: Ikeda, Joh-e
; TITLE OF INVENTION: Neuronal Apoptosis Inhibitor Protein, Gene Sequence and
; Patent No. 6020127
; TITLE OF INVENTION: Mutations Causative of Spinal Muscular Atrophy
; FILE REFERENCE: 3477-112, 033477/139914
; CURRENT APPLICATION NUMBER: US/08/836,134A
; CURRENT FILING DATE: 1997-06-20
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 1232
; TYPE: PRT
; ORGANISM: Homo sapiens
US-08-836-134-2

Query Match 87.2%; Score 6373.5; DB 3; Length 1232;
Best Local Similarity 95.9%; Pred. No. 0;
Matches 1229; Conservative 1; Mismatches 1; Indels 51; Gaps 1;
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RESULT 4

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US-09-493-784-2
; Sequence 2, Application US/09493784
; Patent No. 6429011
; GENERAL INFORMATION:
; APPLICANT: Mackenzie, Alex E.
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mahadevan, Mani S.
; APPLICANT: Mclean, Michael
; APPLICANT: Roy, Natalie
; APPLICANT: Ikeda, Joh-e
; TITLE OF INVENTION: Neuronal Apoptosis Inhibitor Protein, Gene Sequence and
; Patent No. 6429011
; TITLE OF INVENTION: Mutations Causative of Spinal Muscular Atrophy
; FILE REFERENCE: 3477-112, 033477/139914
; CURRENT APPLICATION NUMBER: US/09/493,784
; PRIOR FILING DATE: 2000-01-28
; PRIOR APPLICATION NUMBER: 08/836,134
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 1232
; TYPE: PR1
; ORGANISM: Homo sapiens
US-09-493-784-2
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Query Match      87.2%; Score 6373.5; DB 4; Length 1232;
Best Local Similarity 95.9%; Pred. No. 0;
Matches 1229; Conservative 1; Mismatches 1; Indels 51; Gaps 1;
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RESULT 5

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US-08-836-134-23
; Sequence 23, Application US/08836134A
; Patent No. 6020127
; GENERAL INFORMATION:
; APPLICANT: Mackenzie, Alex E.
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mahadevan, Mani S.
; APPLICANT: Mclean, Michael
; APPLICANT: Roy, Natalie
; APPLICANT: Ikeda, Joh-e
; TITLE OF INVENTION: Neuronal Apoptosis Inhibitor Protein, Gene Sequence and
```

; Patent No. 6020127
; TITLE OF INVENTION: Mutations Causative of Spinal Muscular Atrophy
; FILE REFERENCE: 3477-112, 033477/139914
; CURRENT APPLICATION NUMBER: US/08/836,134A
; CURRENT FILING DATE: 1997-06-20
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 23
; LENGTH: 1151
; TYPE: PRT
; ORGANISM: Homo sapiens
US-08-836-134-23

Query Match 81.5%; Score 5955; DB 3; Length 1151;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1139; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MATQOKASDERISQFDHNLPELSALIGLDAVOLAKELEEEQKERAQMKGYNQMRSE 60
Db 10 MATQOKASDERISQFDHNLPELSALIGLDAVOLAKELEEEQKERAQMKGYNQMRSE 69
QY 61 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQFCSSLIFGAGLTJRLPIEDHKRF 120
Db 70 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQFCSSLIFGAGLTJRLPIEDHKRF 129
QY 121 HPDCGFLLNKDVGNIAKYDIRVKNLKSRLRGKMRYOEEEARLASFRNWPFFYVOGISPCV 180
Db 130 HPDCGFLLNKDVGNIAKYDIRVKNLKSRLRGKMRYOEEEARLASFRNWPFFYVOGISPCV 189
QY 181 LSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Db 190 LSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 249
QY 241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDSIFAYEELRLDSFKDWPRESAVGVALA 300
Db 250 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDSIFAYEELRLDSFKDWPRESAVGVALA 309
QY 301 KAGLFYTGIKDIVQCFSCGGCLEKMQGDDPLDHTRCFPNCPFLQNMKSSAEVTPDLQS 360
Db 310 KAGLFYTGIKDIVQCFSCGGCLEKMQGDDPLDHTRCFPNCPFLQNMKSSAEVTPDLQS 369
QY 361 RGELELLETSESNELEDSIAVGPIVEMAQGEAQWFOEAKNLEQLRAAYTSASFRHMS 420
Db 370 RGELELLETSESNELEDSIAVGPIVEMAQGEAQWFOEAKNLEQLRAAYTSASFRHMS 429
QY 421 LLDISSDLATDHLGCDLSIASKHISRPVQEPVLVPEVFGNLNSVMVEGEAGSGKTVLL 480
Db 430 LLDISSDLATDHLGCDLSIASKHISRPVQEPVLVPEVFGNLNSVMVEGEAGSGKTVLL 489
QY 481 KKIAPFLMASGCCPLNRFQLVFYLSSSTRPDEGLASIIDQLLEKSGSVTEMCMKNIIQ 540
Db 490 KKIAPFLMASGCCPLNRFQLVFYLSSSTRPDEGLASIIDQLLEKSGSVTEMCMKNIIQ 549
QY 541 QLNQVULFLDDYKEICSIPOVIGKLIQKNHLSRTCLLIIVRTNRARDIRRYLETILEIK 600
Db 550 QLNQVULFLDDYKEICSIPOVIGKLIQKNHLSRTCLLIIVRTNRARDIRRYLETILEIQ 609
QY 601 APFPYNTVCILRKLFSGNMTRLRKFENVYFGKNQSLQIKTPLFVAALICAHMFQYFPDPS 660
Db 610 APFPYNTVCILRKLFSGNMTRLRKFENVYFGKNQSLQIKTPLFVAALICAHMFQYFPDPS 669
QY 661 FDDVAVFKSYMERLSLRNKATAEILKATVSSCGELALKGFFSCCFERNDDDLAEAGVDED 720
Db 670 FDDVAVFKSYMERLSLRNKATAEILKATVSSCGELALKGFFSCCFERNDDDLAEAGVDED 729
QY 721 EDLTMCMSKFTAQRLRPFYRFLSPAQOEFLAGMRLIELLSDRQEHODLGLYHLKQINS 780
Db 730 EDLTMCMSKFTAQRLRPFYRFLSPAQOEFLAGMRLIELLSDRQEHODLGLYHLKQINS 789
QY 781 PMMTVSAYNPNFLNYSVSLPSTKAGPKIVSHLHLVDNKESLENISEDDYLKHQPEISLQ 840
Db 790 PMMTVSAYNPNFLNYSVSLPSTKAGPKIVSHLHLVDNKESLENISEDDYLKHQPEISLQ 849

QY 841 MQLRLGLMQICPOAYFSMVSEHLLVLAKTAYQSNVTVAACSPFVLQFLQGRTLTGALNL 900
Db 850 MQLRLGLMQICPOAYFSMVSEHLLVLAKTAYQSNVTVAACSPFVLQFLQGRTLTGALNL 909
QY 901 QYFDPHESLSLRSIHFPIRGNTSPRAHFSVLETCFDSQVPTIIDDYASAFEBMNEM 960
Db 910 QYFDPHESLSLRSIHFPIRGNTSPRAHFSVLETCFDSQVPTIIDDYASAFEBMNEM 969
QY 961 ERNLAEKEDNVKSYMOMQRASPDLTSGYWKLSPRQYKIPCLEVDVNDIDVVGQDMLEIL 1020
Db 970 ERNLAEKEDNVKSYMOMQRASPDLTSGYWKLSPRQYKIPCLEVDVNDIDVVGQDMLEIL 1029
QY 1021 MTVFSASQRIELHLNHSRGFTIESIRPALELSKASVTKCSISKLELSAAEQELLLTPSLE 1080
Db 1030 MTVFSASQRIELHLNHSRGFTIESIRPALELSKASVTKCSISKLELSAAEQELLLTPSLE 1089
QY 1081 SLEVSQTIQSDQIFPNLDKFLCLKELSVLDLEGNINVSFVIPLEFPNFHMEKLLIQISA 1140
Db 1090 SLEVSQTIQSDQIFPNLDKFLCLKELSVLDLEGNINVSFVIPLEFPNFHMEKLLIQISA 1149
QY 1141 E 1141
Db 1150 E 1150

RESULT 6

US-09-493-784-23

; Sequence 23, Application US/09493784

; Patent No. 6429011

; GENERAL INFORMATION:

; APPLICANT: Mackenzie, Alex E.

; APPLICANT: Korneluk, Robert G.

; APPLICANT: Mahadevan, Mani S.

; APPLICANT: McLean, Michael

; APPLICANT: Roy, Natalie

; APPLICANT: Ikeda, Joh-e

; TITLE OF INVENTION: Neuronal Apoptosis Inhibitor Protein, Gene Sequence and

; Patent No. 6429011

; TITLE OF INVENTION: Mutations Causative of Spinal Muscular Atrophy

; FILE REFERENCE: 3477-112, 033477/139914

; CURRENT APPLICATION NUMBER: US/09/493,784

; CURRENT FILING DATE: 2000-01-28

; PRIOR APPLICATION NUMBER: 08/836,134

; PRIOR FILING DATE: 1997-06-20

; NUMBER OF SEQ ID NOS: 23

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 23

; LENGTH: 1151

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-493-784-23

Query Match 81.5%; Score 5955; DB 4; Length 1151;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 1139; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MATQOKASDERISQFDHNLPELSALIGLDAVOLAKELEEEQKERAQMKGYNQMRSE 60
Db 10 MATQOKASDERISQFDHNLPELSALIGLDAVOLAKELEEEQKERAQMKGYNQMRSE 69
QY 61 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQFCSSLIFGAGLTJRLPIEDHKRF 120
Db 70 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQFCSSLIFGAGLTJRLPIEDHKRF 129
QY 121 HPDCGFLLNKDVGNIAKYDIRVKNLKSRLRGKMRYOEEEARLASFRNWPFFYVOGISPCV 180
Db 130 HPDCGFLLNKDVGNIAKYDIRVKNLKSRLRGKMRYOEEEARLASFRNWPFFYVOGISPCV 189
QY 181 LSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Db 190 LSEAGFVFTGKQDTVQCFSCGGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 249
QY 241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDSIFAYEELRLDSFKDWPRESAVGVALA 300


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Db 250 QSYKGFVDITGEHFNVSQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVGVALA 309
QY 301 KAGLFYTGKIDIVOCFSCGGCLEKMOEGDDPLDHTRCFPNCPFLQNMKSSAEVTPDLOS 360
Db 310 KAGLFYTGKIDIVOCFSCGGCLEKMOEGDDPLDHTRCFPNCPFLQNMKSSAEVTPDLOS 369
QY 361 RGELELLETSESNSLSDSIAGVPIVPEMAOGEAQMFOEAKNLNEOLRAAYTSASFRMS 420
Db 370 RGELELLETSESNSLSDSIAGVPIVPEMAOGEAQMFOEAKNLNEOLRAAYTSASFRMS 429
QY 421 LDISSDLATDHLGCDLSIAKSHISKVQEPVLVPEVFGNLSVMCEGEGAGSGKTVLL 480
Db 430 LDISSDLATDHLGCDLSIAKSHISKVQEPVLVPEVFGNLSVMCEGEGAGSGKTVLL 489
QY 481 KKAFLWAGCCPLNRFQVLFYLSSTRPDEGLASIIDQLLEKSGSVTEMCNENIIQ 540
Db 490 KKAFLWAGCCPLNRFQVLFYLSSTRPDEGLASIIDQLLEKSGSVTEMCNENIIQ 549
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Db 550 QLKNOVLFLDDYKEICSIPOVIGKLIQKNLSRTCLLIAVRTNARDIRRYLETILEIQ 609
QY 601 AFPYNTVCILRLFSHNTRLRKFMVYFGKNOSLOKIQKTPLEVAALCAHWFQYFPDPS 660
Db 610 AFPYNTVCILRLFSHNTRLRKFMVYFGKNOSLOKIQKTPLEVAALCAHWFQYFPDPS 669
QY 661 FDDVAVFKSYMERLSLNKATAELKATVSSCGELALKGFFSCCFEFNDDDLAAGVDED 720
Db 670 FDDVAVFKSYMERLSLNKATAELKATVSSCGELALKGFFSCCFEFNDDDLAAGVDED 729
QY 721 EDLWCLMSKFTAORLRPFYRFLSPAFOEFLAGMRLIELDSROEHODLGLYHLKQINS 780
Db 730 EDLWCLMSKFTAORLRPFYRFLSPAFOEFLAGMRLIELDSROEHODLGLYHLKQINS 789
QY 781 PMTVSAYNNFLNYSVSLPSTAGPKIVSHLHLVDNKESELENISENDVYLKHQPEISLQ 840
Db 790 PMTVSAYNNFLNYSVSLPSTAGPKIVSHLHLVDNKESELENISENDVYLKHQPEISLQ 849
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Db 850 MQLIRGLMOICPOAYFSMVSEHLVLALKTAYQSNVTAAACSPFVLQFLOGRTLTGALNL 909
QY 901 QYFEDHPELSLRSIHPIRGNKTSPPRAHFSVLETCFDPKSQVPTIDODYASAFEPNMW 960
Db 910 QYFEDHPELSLRSIHPIRGNKTSPPRAHFSVLETCFDPKSQVPTIDODYASAFEPNMW 969
QY 961 ERNLAEKEDNVKSYMOMORASPDLSIGYKLSPKQYKIPCLEVDVNDIDVVGOMLEIL 1020
Db 970 ERNLAEKEDNVKSYMOMORASPDLSIGYKLSPKQYKIPCLEVDVNDIDVVGOMLEIL 1029
QY 1021 MTFVSASQRIELHNSRGFIESIRPALELSKASVTKCSISKLELSAAEQELLTLPSLE 1080
Db 1030 MTFVSASQRIELHNSRGFIESIRPALELSKASVTKCSISKLELSAAEQELLTLPSLE 1089
QY 1081 SLEVSQTIOSODQIFPNLDKFLCKELISVDLEGINVFSVIPLEEPNFHMEKLLIQISA 1140
Db 1090 SLEVSQTIOSODQIFPNLDKFLCKELISVDLEGINVFSVIPLEEPNFHMEKLLIQISA 1149
QY 1141 E 1141
Db 1150 E 1150

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RESULT 7
US-08-511-485-8
; Sequence 8, Application US/08511485
; Patent No. 5919912
; GENERAL INFORMATION:
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mackenzie, Alexander E.
; APPLICANT: Baird, Stephen
; TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,

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; TITLE OF INVENTION: PROBES, AND DETECTION METHODS
; NUMBER OF SEQUENCES: 38
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/511,485
; FILING DATE: 04-AUG-1995
; CLASSIFICATION: 514
; ATTORNEY/AGENT INFORMATION:
; NAME: Clark, Paul T.
; REGISTRATION NUMBER: 30,162
; REFERENCE/DOCKET NUMBER: 07540/002001
; TELEPHONE: 617/542-5070
; TELEFAX: 617/542-8906
; TELEX: 200154
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 618 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: both
; MOLECULE TYPE: protein
; US-08-511-485-8

Query Match 6.3%; Score 462; DB 2; Length 618;
Best Local Similarity 24.7%; Pred. No. 5.9e-33;
Matches 159; Conservative 93; Mismatches 238; Indels 154; Gaps 24;

QY 38 LEEBQEKERAKMOQGYNSQMRSEAKRLKTFVTEPYSSWIP---QEMAAAGFYFTGVKSG 94
Db 28 LSDWTNSNQMKYDPSCE-----LYRMSTYTFPAGVPVSEBSRLARAGFYTTGVNDK 80
QY 95 IQCFCCSILIFGAGLRLPIEDHKRPHPDGCF---LNLKDVGNIAKYDIRVKN----- 144
Db 81 VKFCFCGLMLDNWKLGDSPIQKHQLYPSCSFTQNLVSASLSGSTSKNTSPMRNSFAHSL 140
QY 145 -----LKSRL-----RGKMRV---QEEBARLASFRNPFYVQG 175
Db 141 PTLHSSLSFGSYGSLPNNPLNSRAVEDISSGRTPNYSYAMSTEBARFLTYHMP--LTF 198
QY 176 ISPCVLEAGFVFTGKQDVTQCFSCGGCLGNWEEGDDPWKEHAKWFPKCFELRSKSSSE 235
Db 199 LSPSELARAGFYIIGPDRAVACGAGKLSNWEPKDAMSEHRRHFPNCFPL---ENSL 255
QY 236 ITQYIQSYKGFVDITGEHFNVSQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVG 295
Db 256 TLRFSIS-----NLSMQT-----HAARWRFTMYWPPSSVYVQ 286
QY 296 VAALAKAGLFYTGKIDIVOCFSCGGCLEKMOEGDDPLDHTRCFPNCPFLQNMKSSAEVT 355
Db 287 PEQLASAGFYIVGRNDVACGCDGGLRCWESGDDPWVEHAKWFPKCFELIRMGQ--EFV 345
QY 356 PDLQSR-GELELLETSESNSLSDSIAGVPIVPEMAOGEAQMFOEAKNLNEOLRAAYTSA 414
Db 346 DEIQRYPHLEQLSTSDTGTGEN--ADPPIIHFGPGESS-SEDAVMNTPPVVKSAL 402
QY 415 SF-----RHMSLDISDL-----ATDHLGCDLSIAS 442
Db 403 GFNRDLVKQTVLSKILTTGENYKTVNDIVSALLNAEDEKREBEKEKQAEEMASDLSLIR 462
QY 443 KHISKPVQEPVLVPEVGNL--NSVMCEGEGAGSGKTVL---LKKIAFLWAGS----- 490

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Db 463 KNRMALFOQLTCLVPLDNLKANVINKOEHDIIKOKTOIPLQARELIDTIWVGNAAN 522
Qy 491 ----CCPLNRFQLVFYLISLSTR-----PDEGLASICDQLEK--EGSVTEMCNRNII 539
Db 523 IFKNC---LKEIDSTLYKNLFVDKNMKYIPTEDVSGLSLEEQRLRQEBRTCKVCMDKEV 579
Qy 540 QOLKNQVFLDLDYKEICSIPOVIGKLIQKNHLSRTCLLAVRT 583
Db 580 -----SVVFIPCGHLVVC---QECAPSLRKCPICRGIIKGTVRT 615

RESULT 8
US-09-212-971-8
; Sequence 8, Application US/09212971B
; Patent No. 6107041
; GENERAL INFORMATION:
; APPLICANT: Korneluk, Robert G
; APPLICANT: Mackenzie, Alexander E
; APPLICANT: Liston, Peter
; APPLICANT: Baird, Stephen
; APPLICANT: Tsang, Benjamin K
; APPLICANT: Pratt, Christine
; TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
; TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
; TITLE OF INVENTION: DISEASE
; FILE REFERENCE: 07891/009002
; CURRENT APPLICATION NUMBER: US/09/212,971B
; CURRENT FILING DATE: 1998-12-16
; EARLIER APPLICATION NUMBER: 60/017,354
; EARLIER FILING DATE: 1996-04-26
; EARLIER APPLICATION NUMBER: 60/030,590
; EARLIER FILING DATE: 1996-11-14
; EARLIER APPLICATION NUMBER: 08/800,929
; EARLIER FILING DATE: 1997-02-13
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 618
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-212-971-8

Query Match 6.3%; Score 462; DB 3; Length 618;
Best Local Similarity 24.7%; Pred. No. 5.9e-33;
Matches 159; Conservative 93; Mismatches 238; Indels 154; Gaps 24;

Qy 38 LEEEOKERAKMOKGYNQMRSEAKRLKFTVTEPYGSSWP--QEMAAAGFYFTGVKSG 94
Db 28 LSDWTNSNKQMKKYDFSGE-----LYRMSTYSTFPAGVPVSESLARAGFYTTGVNDK 80
Qy 95 IOCFCCSLLFGAGLTRPLIEDHKRFHPDGGF--LANKDVGNIAKYDITVKN----- 144
Db 81 VKCFCCGMLDNWKLGDSPIQKHQOLYSCSFIONLVASLSGSTSKTSPMRNSFAHSLS 140
Qy 145 -----LKSRL-----RGCKMRY--QEEEARLAJFRNMPFYVQG 175
Db 141 PTLHSSLFSGSYSLPBNPLNSRAVEDISSRTNPYSYAMSTEARFLTYHMP--LTF 198
Qy 176 ISPCVLSEAGFVFTGKODTVQCFSCGCGCLGNWEEGDDPMKEHAKWPKCEFLRSKSSSE 235
Db 199 LSPSELARAGFYIIPGDRVACFACGCKLSNWEPKDAMSEHRHFPNCPFL--ENSL 255
Qy 236 ITQYIOGYKGFVDITGEHFVNSWVQRELPMASAYCNDSTFAYEELRLDSFKDWPRESAVG 295
Db 256 TLRFSIS-----NLSMQT-----HAARMRTFMYPSSVPVQ 286
Qy 296 VAALAKAGLFYTGIDIVQCFSCGCGCLEKQEGDDPLDDHTRCFPNCPFLQNMKSSAEVT 355
Db 287 PEQLASAGFYVGRNDVYKCFGCDGGLRCWESGDDPMVWEHAKWPKCEFLIRMGQ--EFV 345
Qy 356 PDLQSR-CELCELLLETSESNLDSIAVGPIVPEMAQGEAQWFOEAKNLEQLRAAYTSA 414
Db 346 DEIQGRYVHLLLEQLLSTSDTGTGEEN--ADPPIIHFGPGESS--SEDAVMNNTPVVKSAL 402
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Qy 415 SF-----RHMSLIDISSDL-----ATDHLGCDISIAS 442
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Qy 491 ----CCPLNRFQLVFYLISLSTR-----PDEGLASICDQLEK--EGSVTEMCNRNII 539
Db 523 IFKNC---LKEIDSTLYKNLFVDKNMKYIPTEDVSGLSLEEQRLRQEBRTCKVCMDKEV 579
Qy 540 QOLKNQVFLDLDYKEICSIPOVIGKLIQKNHLSRTCLLAVRT 583
Db 580 -----SVVFIPCGHLVVC---QECAPSLRKCPICRGIIKGTVRT 615

RESULT 9
US-08-800-929A-8
; Sequence 8, Application US/08800929A
; Patent No. 6133437
; GENERAL INFORMATION:
; APPLICANT: Korneluk, Robert G
; APPLICANT: Mackenzie, Alexander E
; APPLICANT: Liston, Peter
; APPLICANT: Baird, Stephen
; APPLICANT: Tsang, Benjamin K
; APPLICANT: Pratt, Christine
; TITLE OF INVENTION: DETECTION AND MODULATION OF
; TITLE OF INVENTION: IAPS AND NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Clark & Elbing LLP
; STREET: 176 Federal Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/800,929A
; FILING DATE: 13-FEB-1997
; CLASSIFICATION: 424
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 60/030,590
; FILING DATE: 14-NOV-1996
; APPLICATION NUMBER: 60/017,354
; FILING DATE: 26-APR-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Bieker-Brady, Kristina
; REGISTRATION NUMBER:
; REFERENCE/DOCKET NUMBER: 07891/009001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-428-0200
; TELEFAX: 617-428-7045
; TELEX:
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 618 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-800-929A-8

Query Match 6.3%; Score 462; DB 3; Length 618;
Best Local Similarity 24.7%; Pred. No. 5.9e-33;
```

Matches 159; Conservative 93; Mismatches 238; Indels 154; Gaps 24;

QY 38 LEEBQKERAKMKGYNQMSRSEAKRLKFTVTEPYSSWIP---QEMAAAGFTGTGKSG 94
 Db 28 LSDWTNSNKQKMYDFSC-----LYRMTSTFTFAGVPVSEKSLARAGFTYTGVDK 80
 QY 95 IQFCFCSLILFGAGLTRLPIEDHKRHPDCGF---LTKNDVGNIAKYDIRVKN----- 144
 Db 81 VKCFCCGLMDNMWKLGDSPIQKHQKQLYPSCSFIONLVASLSGTSKNTSPMNSFAHSL 140
 QY 145 -----LKSRL-----RGKMRV---QEEBARLASFRNWPFTVQ 175
 Db 141 PTLHSSLFSGSYSSLPPNPLNSRAVEDISSSRTPNPSYAMSTEERFLTYHMP--LTF 198
 QY 176 ISPCVLSEAGFVFTGKODTVQCFSCGCGCLGNWEGDDPWKEHAKWPKCEFLRSKSS 235
 Db 199 LSPSELARAGFYIIGPDRAVACGCKLSNWEPKDAMSEHRHFPNCPFL---ENSL 255
 QY 236 ITQYIQSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVG 295
 Db 256 TLRFSIS-----NLSMQT-----HAARMRTFMYWPSSVVPQ 286
 QY 296 VAALAKAGLFTYGIKIDIVQCFSCGCGCLEKQEGDDPLDHTRCFPNCPFLQNMKSSAEVT 355
 Db 287 PEQLASAGFYVGRNDVCKFCDCGGLRCWESGDDPWVEHAKWFPCEFLIRMGQ-EFV 345
 QY 356 PDLQSR-GEICELLETTSESNEISIAVGPVPEMAQGEAQMFOEAKNLEQLRAAYTSA 414
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 QY 415 SF-----RHMSLIDISDL-----ATDHLGCDLSIAS 442
 Db 403 GFNRDLVKQTVLSKILTTGENYKTVNDIVSALLNAEDEKREKEKQAEWASDLSLR 462
 QY 443 KHISKVPQEPVLPEVFGNL---NSVMCEGEAGSGKTVL---LKTIAFLWASG----- 490
 Db 463 KNRMLFQQLTCLPILNLLKANVINKQEHDIKQKTQIPLQARELITDIWVKGNAAAN 522
 QY 491 ----CCPLNRFQLVFYLSLSSTR-----PDEGLASIIDQLLEK--EGSVTEMCNRNII 539
 Db 523 IFKNC---LKEIDSTLYKNLFVDKNMKYIPTEDVSGLSLEQLRRLQERTCKVCMDEK 579
 QY 540 QQLKNQVFLDDYKEICSIPOVIGKLIQKNHLSRTCLLIIVART 583
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RESULT 10
 US-08-569-749-2
 ; Sequence 2, Application US/08569749
 ; Patent No. 6187557
 ; GENERAL INFORMATION:
 ; APPLICANT: Rothe, Mike
 ; APPLICANT: Goeddel, David V
 ; TITLE OF INVENTION: INHIBITORS OF APOPTOSIS
 ; NUMBER OF SEQUENCES: 14
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: FLEHR, HOBBACH, TEST, ALBRITTON & HERBERT
 ; STREET: 4 Embarcadero Center, Suite 3400
 ; CITY: San Francisco
 ; STATE: California
 ; COUNTRY: USA
 ; ZIP: 94111
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: Patentin Release #1.0, Version #1.30
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/569,749
 ; FILING DATE:
 ; CLASSIFICATION: 514
 ; ATTORNEY/AGENT INFORMATION:

NAME: Brezner, David J.
 REGISTRATION NUMBER: 24,774
 REFERENCE/DOCKET NUMBER: A-62464/DJB
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (415)781-1989
 TELEFAX: (415)398-3249
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 618 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 US-08-569-749-2

Query Match 6.3%; Score 462; DB 3; Length 618;
 Best Local Similarity 26.0%; Pred. No. 5.9e-33;
 Matches 155; Conservative 82; Mismatches 214; Indels 146; Gaps 22;

QY 38 LEEBQKERAKMKGYNQMSRSEAKRLKFTVTEPYSSWIP---QEMAAAGFTGTGKSG 94
 Db 28 LSDWTNSNKQKMYDFSC-----LYRMTSTFTFAGVPVSEKSLARAGFTYTGVDK 80
 QY 95 IQFCFCSLILFGAGLTRLPIEDHKRHPDCGF---LTKNDVGNIAKYDIRVKN----- 144
 Db 81 VKCFCCGLMDNMWKLGDSPIQKHQKQLYPSCSFIONLVASLSGTSKNTSPMNSFAHSL 140
 QY 145 -----LKSRL-----RGKMRV---QEEBARLASFRNWPFTVQ 175
 Db 141 PTLHSSLFSGSYSSLPPNPLNSRAVEDISSSRTPNPSYAMSTEERFLTYHMP--LTF 198
 QY 176 ISPCVLSEAGFVFTGKODTVQCFSCGCGCLEKQEGDDPWKEHAKWPKCEFLRSKSS 235
 Db 199 LSPSELARAGFYIIGPDRAVACGCKLSNWEPKDAMSEHRHFPNCPFL---ENSL 255
 QY 236 ITQYIQSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVG 295
 Db 256 TLRFSIS-----NLSMQT-----HAARMRTFMYWPSSVVPQ 286
 QY 296 VAALAKAGLFTYGIKIDIVQCFSCGCGCLEKQEGDDPLDHTRCFPNCPFLQNMKSSAEVT 355
 Db 287 PEQLASAGFYVGRNDVCKFCDCGGLRCWESGDDPWVEHAKWFPCEFLIRMGQ-EFV 345
 QY 356 PDLQSR-GEICELLETTSESNEISIAVGPVPEMAQGEAQMFOEAKNLEQLRAAYTSA 414
 Db 346 DEIQRYPHLEQLLSTSDTGEEN--ADPPIIHFGPGESS-SEDAVMNTPTPVKSAL 402
 QY 415 SFRHMSLIDISSDLATDHLGCDLSIASKHISKVPQEP-LVPEVFGNLSVMCEGEAG 473
 Db 403 GFNR-----DL-----VKQTVQSKILLTTGENYKTVNDIVSALLNAE 438
 QY 474 SKTVLLK-KIAFLWASGCCPLNRFQLVFYLSLSSTRPDEGLASIIDQLLEKEGSVTE 532
 Db 439 DEKREERKQAEWASDLSLRKNRMALFQQLTCLP-----ILDNLK----- 484
 QY 533 MCMRNIIQQLKNQVFLDDYKEICSIPOVIGKLIQKNHLSRTCLLIIVARTNRARDI 589
 Db 485 ---ANVINKQEHDI-----KQKTQIPLQARELID-----TILVKGNAANI 523

RESULT 11
 US-09-617-053A-8
 ; Sequence 8, Application US/09617053A
 ; Patent No. 6300492
 ; GENERAL INFORMATION:
 ; APPLICANT: Korneljuk, Robert G
 ; APPLICANT: Mackenzie, Alexander E
 ; APPLICANT: Liston, Peter
 ; APPLICANT: Baird, Stephen
 ; APPLICANT: Tsang, Benjamin K
 ; APPLICANT: Pratt, Christine
 ; TITLE OF INVENTION: DETECTION AND MODULATION OF IAPS AND
 ; TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE


```
/ TITLE OF INVENTION: DISEASE
/ FILE REFERENCE: 07891/009003
/ CURRENT APPLICATION NUMBER: US/09/617, 053A
/ CURRENT FILING DATE: 2000-07-14
/ PRIOR APPLICATION NUMBER: US 08/800,929
/ PRIOR FILING DATE: 1997-02-13
/ NUMBER OF SEQ ID NOS: 17
/ SOFTWARE: FastSeq for Windows Version 4.0
/ SEQ ID NO 8
/ LENGTH: 618
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-09-617-053A-8
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Query Match 6.3%; Score 462; DB 3; Length 618;

Best Local Similarity 24.7%; Pred. No. 5.9e-33;

Matches 159; Conservative 93; Mismatches 238; Indels 154; Gaps 24;

```
QY 38 LEEBEQKERAKMOKGYNSQMRSEAKRLKFTVTEPYSSWIP--QEMAAAGFYFTGVKSG 94
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
28 LSDWTNSNKQMKKYDFSC-----LYRMSTYSTFPAGVPVSEKSLARAGFYTTGVNDK 80

QY 95 IQCFCCSLILFGAGLTRLPIDHKRPHPDGCF--LNKDVGNIAKYDIRVKN----- 144
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
81 VKCFCCGLMLDNWKLGDSPIQKHQOLYFSCSFIONLVASASLGSTSKNTSPMRNSFAHSL 140

QY 145 -----LKSRL-----RGKMR--QEEEARLASFRNWPYVQG 175
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
141 PTLHSSLSFGSYSLSPNPLNSRAVEDISSRTNPYSYAMSTEERFLTYHWP--LTF 198

QY 176 ISPCVSEAGFVFTGKODTVQCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSE 235
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
199 LSPSELARAGFYIIGPDRAVACFACGGLSNWEPKDDAMSEHRHFPNCPFL--ENSLE 255

QY 236 ITQYIOSYKGFVDITGEHFVNSWQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVG 295
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
256 TLRFSIS-----NLSMQT-----HAARWRTFMYPSSVAVQ 286

QY 296 VAALAKAGLFYTGKIDIVQCFSCGCGCLEKWOEGDDPLDHTRCFPNCPFLQNMKSSAEVT 355
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
287 PEQLASAGFYVYGRNDVKCFGCDGRLCWESGDDPWVEHAKWPRCEFLIRMKGQ-EFV 345

QY 356 PDLOSR-GELCELLETSESNLBDSIAGPIVPMAQGEAQWFOEAKNLINQLRAAYTSA 414
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
346 DEIQRYPHLEQLSTSDTTGEEN--ADPPIIHFGPESS-SEDAVMNMTPVVKSALIE 402

QY 415 SF-----RHMSLLDISSDL-----ATDHLGCDLSIAS 442
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
403 GFNRDLVKQTVLSKILTTGENYKTVNDIVSALLNAEDEKREEKEQAEMASDLSLR 462

QY 443 KHISRPVOEPLVLPVEFGNL--NSVMCEGEAGSGKTVL---LKKIAFLWASG----- 490
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
463 KNRMALFOQLTCLVPLIDNLKANKVINQEHDIKQKQIPLQARELIDTIWVGNAAN 522

QY 491 ----CCPLLNRFLQVLYLSLSTR-----PDEGLASIIDQLLEK--EGSVTEMCMENII 539
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
523 IFKNC---LKEIDSTLYKNLFDVKMKXIPTEDVSGLSLEQLRLQERCKVCMDKEV 579

QY 540 QQLKNQVFLFLDDYKEISIPQVIGKLIQKNHLSRTCLLIAVRT 583
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 580 ----SVFIFPCGHLVVC---QECAPSLRKCPICRGIIKGTVRT 615
```

RESULT 12

```
US-09-069-023-29
/ Sequence 29, Application US/09069023A
/ Patent No. 6348573
/ GENERAL INFORMATION:
/ APPLICANT: Nunez, Gabriel
/ APPLICANT: Inohara, Naohiro
/ APPLICANT: Koseki, Takeyoshi
/ TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR IDENTIFYING APOPTOSIS
/ TITLE OF INVENTION: SIGNALING PATHWAY INHIBITORS AND ACTIVATORS
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```
/ FILE REFERENCE: UM-03333
/ CURRENT APPLICATION NUMBER: US/09/069, 023A
/ CURRENT FILING DATE: 1998-04-27
/ NUMBER OF SEQ ID NOS: 38
/ SOFTWARE: PatentIn Ver. 2.0
/ SEQ ID NO 29
/ LENGTH: 618
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-09-069-023-29
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Query Match 6.3%; Score 462; DB 3; Length 618;

Best Local Similarity 26.0%; Pred. No. 5.9e-33;

Matches 155; Conservative 82; Mismatches 214; Indels 146; Gaps 22;

```
QY 38 LEEBEQKERAKMOKGYNSQMRSEAKRLKFTVTEPYSSWIP--QEMAAAGFYFTGVKSG 94
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
28 LSDWTNSNKQMKKYDFSC-----LYRMSTYSTFPAGVPVSEKSLARAGFYTTGVNDK 80

QY 95 IQCFCCSLILFGAGLTRLPIDHKRPHPDGCF--LNKDVGNIAKYDIRVKN----- 144
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
81 VKCFCCGLMLDNWKLGDSPIQKHQOLYFSCSFIONLVASASLGSTSKNTSPMRNSFAHSL 140

QY 145 -----LKSRL-----RGKMR--QEEEARLASFRNWPYVQG 175
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
141 PTLHSSLSFGSYSLSPNPLNSRAVEDISSRTNPYSYAMSTEERFLTYHWP--LTF 198

QY 176 ISPCVSEAGFVFTGKODTVQCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSE 235
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
199 LSPSELARAGFYIIGPDRAVACFACGGLSNWEPKDDAMSEHRHFPNCPFL--ENSLE 255

QY 236 ITQYIOSYKGFVDITGEHFVNSWQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVG 295
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
256 TLRFSIS-----NLSMQT-----HAARWRTFMYPSSVAVQ 286

QY 296 VAALAKAGLFYTGKIDIVQCFSCGCGCLEKWOEGDDPLDHTRCFPNCPFLQNMKSSAEVT 355
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
287 PEQLASAGFYVYGRNDVKCFCCDGLRCWESGDDPWVEHAKWPRCEFLIRMKGQ-EFV 345

QY 356 PDLOSR-GELCELLETSESNLBDSIAGPIVPMAQGEAQWFOEAKNLINQLRAAYTSA 414
: : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
346 DEIQRYPHLEQLSTSDTTGEEN--ADPPIIHFGPESS-SEDAVMNMTPVVKSALIE 402

QY 415 SFRHMSLLDISSDLATDHLGCDLSASKHISKPVQEP-LVLPVEFGNLNSVMCEGEAG 473
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
403 GFNR-----DL-----VKQTVQSKILTTGENYKTVNDIVSALLNAE 438

QY 474 SGKTVLLK-KIAFLWASGCCPLLNRFLQVLYLSLSTRPDEGLASIIDQLLEKEGSVTE 532
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
439 DEKREEKEQAEMASDLSLRKNMALFOQLTCLVLP-----ILDNLK----- 484

QY 533 MCMRNIIQQLKNQVFLFLDDYKEISIPQVIGKLIQKNHLSRTCLLIAVRTNRARDI 589
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 485 ---ANVINKQEHDI-----KQKQIPLQARELID-----TILVKGNAANI 523
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RESULT 13

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US-09-201-936-8
/ Sequence 8, Application US/09201936
/ Patent No. 6541457
/ GENERAL INFORMATION:
/ APPLICANT: Korneluk, Robert G.
/ APPLICANT: Mackenzie, Alexander E.
/ APPLICANT: Baird, Stephen
/ APPLICANT: Liston, Peter
/ TITLE OF INVENTION: MAMMALIAN IAP GENE FAMILY, PRIMERS,
/ TITLE OF INVENTION: PROBES, AND DETECTION METHODS
/ FILE REFERENCE: 07891/003003
/ CURRENT APPLICATION NUMBER: US/09/201, 936
/ CURRENT FILING DATE: 1998-12-01
/ EARLIER APPLICATION NUMBER: 09/011,356
/ EARLIER FILING DATE: 1998-02-04
/ EARLIER APPLICATION NUMBER: PCT/IB96/01022
```



```

; APPLICANT: Baird, Stephen
; APPLICANT: Holcik, Martin
; APPLICANT: Young, Sean
; TITLE OF INVENTION: Antisense IAP Nucleic Acids and Uses
; TITLE OF INVENTION: Thereof
; FILE REFERENCE: 07891/025001
; CURRENT APPLICATION NUMBER: US/09/672,717
; CURRENT FILING DATE: 2000-09-28
; NUMBER OF SEQ ID NOS: 231
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 223
; LENGTH: 618
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-672-717-223
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Query Match          6.3%; Score 462; DB 4; Length 618;
Best Local Similarity 24.7%; Pred. No. 5.9e-33;
Matches 159; Conservative 93; Mismatches 238; Indels 154; Gaps 24;
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```

QY      38 LEEBEOKERAKMOKGYNSQMRSEAKRLKTFVTEPYSSWIP--QEMAAAGFYFTGVKSG 94
      | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      28 LSDWTNSNKQKMKYDPSCE-----LYRMSTYSTFPAGVPVSERSLARAGFYTYGVNDK 80

QY      95 IQCFCCSLILFGAGLTRLPIDHKKRHPDCGF--LINKDVGNIAKYDIRVKN----- 144
      : : | | | | : | : | : | : | : | : | : | : | : | : | : | : |
DB      81 VKCFCCGLMLDNWKLGDSPIQKHKLVPSCSFIONLVASASLGSTSKNTSEMRNSFAHSLS 140

QY      145 -----LKSRL-----RGKNRY--QEEEARLASFRNWPFYVQG 175
      | | | | | | | | | | | | | | | | | | | | | | : | : | : |
DB      141 PTLHSSLSFGSYSSLPNPPLNSRAVEDISSRTNPYSYAMSTEERFLTYHWP--LTF 198

QY      176 ISPCVSEAGFVFTGKQDTVQCFSGCGCLGNWEEGDDPWKEHAKWPKCFILRSKKSSE 235
      : : | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      199 LSPSELARAGFYIIGPDRAVACFACGKLSNWEPRKDAMSEHRHRHPNCPFL--ENSLE 255

QY      236 ITQYIQSYKGFVDITGEHFNVSQWQRELPASAYCNDISIFAYEELRIDSFKDWPRESAVG 295
      : : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      256 TLRFSIS-----NLSMQT-----HAARMRTFMYPSSVYPVQ 286

QY      296 VAALAKAGLFYTGIDIVQCFSCGCGLEKQOEGLDPLDHTRCFPNCPFLQNMKSSAEVT 355
      | | | | | : | : | : | : | : | : | : | : | : | : | : | : |
DB      287 PEQLASAGFYVGRNDVKCFGCDGRCWESGDDPWVEHAKWFPRCFELIRMKQ-EFV 345

QY      356 PDLOSR-GEICELLETTSESNLSDSIYAVPIVPEMAQGEAQWFOEAKNLNEQLRAAYTSA 414
      : : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      346 DEIQGRYPHLLLEQLSTSDTTGEEN--ADPRIIHFGPGESS-SEDAVMNNTPVVKSAL 402

QY      415 SF-----RHMSLIDISSDL-----ATDHLGCDLSIAS 442
      | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      403 GFNRDLVKQTVLSKILTTGENYKTVNDIVSALLNAEDEKREBEKEQAEMASDDLIR 462

QY      443 KHISKPVQEPVLVPEVFGNL--NSVNCVEGEAGSGKTVL----LKKIAFLMASG----- 490
      | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      463 KNRMALFQQLTCVLPILDNLLKANVINKEHDIKQKTQIPLQARELIDTIWVKGNAAAN 522

QY      491 ----CCPLINRFQLVFYLSTSTR-----PDEGLASIIDQLLEK--EGSVTEMCMRNII 539
      | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      523 IFFKNC---LKEIDSTLYKNLFPVDKMKKIPTEDVSGLSLEQLRRLQERCTKVCMDKEV 579

QY      540 QQLKNQVLFLLDDYKEICSIPOVIGKLIQKNHLSRTCLLIAVRT 583
      : : | : | : | : | : | : | : | : | : | : | : | : | : |
DB      580 -----SVVFIPCGHLVVC---QECAPSLRKCPICRGIIKGTVRT 615
```

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Search completed: March 25, 2005, 06:41:35
Job time : 52 secs
```


GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: March 25, 2005, 06:40:39 ; Search time 1249 Seconds
(without alignments)
371.925 Million cell updates/sec

Title: US-09-830-338-1

Perfect score: 7308
Sequence: 1 MATQOKASDERISQFDHNL.....SKYLTLQKWLPFSPFIQK 1403

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1407402 seqs, 331100923 residues

Total number of hits satisfying chosen parameters: 1407402

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA:*

1:	/cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2:	/cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
3:	/cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
4:	/cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
5:	/cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
6:	/cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
7:	/cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
8:	/cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
9:	/cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep:*
10:	/cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
11:	/cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
12:	/cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
13:	/cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
14:	/cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
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16:	/cgn2_6/ptodata/1/pubpaa/US10D_PUBCOMB.pep:*
17:	/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
18:	/cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
19:	/cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
20:	/cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	7308	100.0	1403	8	US-08-913-322-22
2	7308	100.0	1403	8	US-08-913-322-24
3	7308	100.0	1403	14	US-10-285-408-1
4	3970.5	54.3	782	9	US-09-841-739-9
5	3970.5	54.3	782	14	US-10-449-315-9
6	1975	27.0	385	14	US-10-029-386-33707
7	1903	26.0	898	9	US-09-841-739-11
8	1903	26.0	898	14	US-10-449-315-11
9	1037	14.2	203	14	US-10-029-386-33933
10	661	9.0	1204	9	US-09-841-739-5
11	661	9.0	1204	14	US-10-449-315-5
12	654	8.9	1024	14	US-10-156-733-2
13	654	8.9	1070	14	US-10-221-097-49

14	653	8.9	1024	9	US-09-841-739-2	Sequence 2, Appl1
15	653	8.9	1024	14	US-10-449-315-2	Sequence 2, Appl1
16	641	8.8	1024	9	US-09-864-921-97	Sequence 97, Appl1
17	641	8.8	1024	17	US-10-766-682-97	Sequence 1033, Ap
18	545.5	7.5	118	9	US-09-925-299-1033	Sequence 1033, Ap
19	545.5	7.5	118	10	US-09-925-299-1033	Sequence 48, Appl
20	536.5	7.3	738	14	US-10-221-097-48	Sequence 8, Appl1
21	462	6.3	618	9	US-09-974-592-8	Sequence 8, Appl1
22	462	6.3	618	9	US-09-201-936-8	Sequence 338, App
23	462	6.3	618	14	US-10-153-668-338	Sequence 200, App
24	462	6.3	618	14	US-10-207-655-200	Sequence 2, Appl1
25	462	6.3	618	14	US-10-232-286-2	Sequence 4, Appl1
26	462	6.3	618	15	US-10-366-307-4	Sequence 223, App
27	462	6.3	618	15	US-10-361-270-3	Sequence 63, Appl
28	462	6.3	618	15	US-10-260-708-63	Sequence 2, Appl1
29	462	6.3	618	16	US-10-636-065-223	Sequence 8, Appl1
30	462	6.3	618	16	US-10-600-272-8	Sequence 78, Appl
31	462	6.3	618	17	US-10-730-476A-78	Sequence 2, Appl1
32	462	6.3	612	9	US-09-974-592-14	Sequence 14, Appl
33	457.5	6.3	612	14	US-10-232-286-14	Sequence 14, Appl
34	457.5	6.3	612	17	US-10-934-717-14	Sequence 42, Appl
35	457.5	6.0	591	9	US-09-201-936-42	Sequence 229, App
36	441.5	6.0	591	16	US-10-636-065-229	Sequence 42, Appl
37	441.5	6.0	591	16	US-10-600-272-42	Sequence 12, Appl
38	441.5	6.0	591	9	US-09-974-592-12	Sequence 10, Appl
39	440	6.0	496	9	US-09-974-592-10	Sequence 225, App
40	437.5	6.0	496	9	US-10-201-936-10	Sequence 10, Appl
41	437.5	6.0	496	16	US-10-636-065-225	Sequence 10, Appl
42	437.5	6.0	496	16	US-10-600-272-10	Sequence 4, Appl1
43	437.5	6.0	496	14	US-10-232-286-4	Sequence 6, Appl1
44	436.5	6.0	604	14	US-10-141-618-6	
45	436.5	6.0				

ALIGNMENTS

RESULT 1
US-08-913-322-22
; Sequence 22, Application US/08913322
; Publication No. US20020137028A1
; GENERAL INFORMATION:
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mackenzie, Alexander E.
; APPLICANT: Roy, Natalie
; APPLICANT: Robertson, George
; APPLICANT: Tamai, Katsu
; TITLE OF INVENTION: USER OF NEURONAL APOPTOSIS INHIBITOR
; TITLE OF INVENTION: (NAIP)
; FILE REFERENCE: 07891/013001
; CURRENT APPLICATION NUMBER: US/08/913,322
; EARLIER FILING DATE: 1997-09-12
; EARLIER APPLICATION NUMBER: PCT/IB97/00142
; EARLIER FILING DATE: 1997-01-17
; EARLIER APPLICATION NUMBER: GB 9601108.5
; EARLIER FILING DATE: 1996-01-19
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 22
; LENGTH: 1403
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-08-913-322-22

Query Match 100.0%; Score 7308; DB 8; Length 1403;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1403; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MATQOKASDERISQFDHNLPELSALLGLDAVQLAKELEBEEKERAKMGKGYNSQMRSE 60
|||
Db 1 MATQOKASDERISQFDHNLPELSALLGLDAVQLAKELEBEEKERAKMGKGYNSQMRSE 60
QY 61 AKRLKFTVTEPYSSWIPQEMAAGFYFTGVKSGIQCFCCSLILFGAGLTRLPIDHRRF 120


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Db      61 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQCFCCSLILFGAGLTRLPIDHKRF 120
Qy      121 HPDCGFLNKDVGNIAKYDIRVKNLKSRLRGKMRYYOEERLASFRNMPFYVGISPCV 180
Db      121 HPDCGFLNKDVGNIAKYDIRVKNLKSRLRGKMRYYOEERLASFRNMPFYVGISPCV 180
Qy      181 LSEAGFVFTGKQDVTVOCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Db      181 LSEAGFVFTGKQDVTVOCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Qy      241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVGVAALA 300
Db      241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVGVAALA 300
Qy      301 KAGLFYTGIKDIVOCFSCGCGCLEKWQEGDDPLDDHTRCFPNCPFLQNMKSSAEVTPDLOS 360
Db      301 KAGLFYTGIKDIVOCFSCGCGCLEKWQEGDDPLDDHTRCFPNCPFLQNMKSSAEVTPDLOS 360
Qy      361 RGELOCLELLETSESNEBSIAVGPVPEMAQGEAQWFOBAKNLNEQLRAAYTSASFRHMS 420
Db      361 RGELOCLELLETSESNEBSIAVGPVPEMAQGEAQWFOBAKNLNEQLRAAYTSASFRHMS 420
Qy      421 LLDISSDLATDHLGCDISIAASKHISKVQEPVLVPEVFGNLSVMCVGEAGSGKTIVLL 480
Db      421 LLDISSDLATDHLGCDISIAASKHISKVQEPVLVPEVFGNLSVMCVGEAGSGKTIVLL 480
Qy      481 KKIAPFLMASGCCPLNRFQLVFYLSLSTRPDEGLASIIDQLEKESVTEMCNRNIQ 540
Db      481 KKIAPFLMASGCCPLNRFQLVFYLSLSTRPDEGLASIIDQLEKESVTEMCNRNIQ 540
Qy      541 QLKNOVLFLDDYKEICISIPVIGKLIQKNHLSRTCLLAVRTNRARDIRRYLETIIEIK 600
Db      541 QLKNOVLFLDDYKEICISIPVIGKLIQKNHLSRTCLLAVRTNRARDIRRYLETIIEIK 600
Qy      601 AFPEYNTVCILRKLFESHNMTRLRKEMWYFGKNOSLOKIQKTPLFVAICAHWFOYPPDS 660
Db      601 AFPEYNTVCILRKLFESHNMTRLRKEMWYFGKNOSLOKIQKTPLFVAICAHWFOYPPDS 660
Qy      661 FDDVAVFKSYMERLSLRNKATAEILKATVSSCGELALKGFFSCCFEENDDDLAAGVDED 720
Db      661 FDDVAVFKSYMERLSLRNKATAEILKATVSSCGELALKGFFSCCFEENDDDLAAGVDED 720
Qy      721 EDLTMCLMSKFTAQRLRPFYRFLSPAFQEFLAGMRLIELLSDROEHODLGLYHLKQINS 780
Db      721 EDLTMCLMSKFTAQRLRPFYRFLSPAFQEFLAGMRLIELLSDROEHODLGLYHLKQINS 780
Qy      781 PMMTVSAYNMFNLYVSSLPTKAGPKIVSHLHLVDNKESENISENDYLLKHQPEISLQ 840
Db      781 PMMTVSAYNMFNLYVSSLPTKAGPKIVSHLHLVDNKESENISENDYLLKHQPEISLQ 840
Qy      841 MOLLRLGMOICPOAYFSMVSEHLVLALKTAYQSNVAAACSPFVLQFLQGRITTLGALNL 900
Db      841 MOLLRLGMOICPOAYFSMVSEHLVLALKTAYQSNVAAACSPFVLQFLQGRITTLGALNL 900
Qy      901 QYFEDHPESSLRSIHPIRGNKTSPPRAHFSVLETCFDKSQVPTIIDQDYASAFEPNNEW 960
Db      901 QYFEDHPESSLRSIHPIRGNKTSPPRAHFSVLETCFDKSQVPTIIDQDYASAFEPNNEW 960
Qy      961 ERNLAEKEDNVKSYMDMORRASPDLSTGYWKLSPKQYKIPCLEVDVNDIDVVGOMLEIL 1020
Db      961 ERNLAEKEDNVKSYMDMORRASPDLSTGYWKLSPKQYKIPCLEVDVNDIDVVGOMLEIL 1020
Qy      1021 MTVFSASORIELHLNHSRGFIESIRPALLELSKASVTKCSISKLELSAAEQELLTLPSLE 1080
Db      1021 MTVFSASORIELHLNHSRGFIESIRPALLELSKASVTKCSISKLELSAAEQELLTLPSLE 1080
Qy      1081 SLEVSGTIOQODOIFPNLDKFLCKELSVLEGNINVSVIPPEEPNFHMEKLLIQISA 1140
Db      1081 SLEVSGTIOQODOIFPNLDKFLCKELSVLEGNINVSVIPPEEPNFHMEKLLIQISA 1140
Qy      1141 EYDPSKLVKLIQNSPNLHVFLHKCNFSDFGSLMTMLVSCCKLTELKFSDFSFOAVPFVA 1200

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Db      1141 EYDPSKLVKLIQNSPNLHVFLHKCNFSDFGSLMTMLVSCCKLTELKFSDFSFOAVPFVA 1200
Qy      1201 SLPNFISLKIILNEGOQFPDEETSEKFAYILGSLSNLEELILPTGDIYRVAKLIIOCC 1260
Db      1201 SLPNFISLKIILNEGOQFPDEETSEKFAYILGSLSNLEELILPTGDIYRVAKLIIOCC 1260
Qy      1261 QLHCLRVLSFFKTLNDSVEIAKVAISGGFOKLENLKLSINHKTIEEGYRNFQALDNM 1320
Db      1261 QLHCLRVLSFFKTLNDSVEIAKVAISGGFOKLENLKLSINHKTIEEGYRNFQALDNM 1320
Qy      1321 PNLQELDISRHFTECIKAQATVKSLSQCVLRLPRLIRLNMLSWLLDADDIALNMKER 1380
Db      1321 PNLQELDISRHFTECIKAQATVKSLSQCVLRLPRLIRLNMLSWLLDADDIALNMKER 1380
Qy      1381 HPQSKYLTILQKWLIPFSPIIQK 1403
Db      1381 HPQSKYLTILQKWLIPFSPIIQK 1403

RESULT 2
US-08-913-322-24
; Sequence 24, Application US/08913322
; Publication No. US20020137028A1
; GENERAL INFORMATION:
; APPLICANT: Korneluk, Robert G.
; APPLICANT: Mackenzie, Alexander E.
; APPLICANT: Roy, Natalie
; APPLICANT: Robertson, George
; APPLICANT: Tamai, Katsu
; TITLE OF INVENTION: USER OF NEURONAL APOPTOSIS INHIBITOR
; TITLE OF INVENTION: (NAIP)
; FILE REFERENCE: 07891/013001
; CURRENT APPLICATION NUMBER: US/08/913,322
; CURRENT FILING DATE: 1997-09-12
; EARLIER APPLICATION NUMBER: PCT/IB97/00142
; EARLIER FILING DATE: 1997-01-17
; EARLIER APPLICATION NUMBER: GB 9601108.5
; EARLIER FILING DATE: 1996-01-19
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: FastSeq for windows Version 3.0
; SEQ ID NO 24
; LENGTH: 1403
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-08-913-322-24

Query Match      100.0%; Score 7308; DB 8; Length 1403;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1403; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 MATQOKASDERISQFDHNLJLPELSALLGLDAVOLAKELLEEEOKERAKMOGYNSOMRSE 60
Db      1 MATQOKASDERISQFDHNLJLPELSALLGLDAVOLAKELLEEEOKERAKMOGYNSOMRSE 60
Qy      61 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQCFCCSLILFGAGLTRLPIDHKRF 120
Db      61 AKRLKTFVTEPYSSWIPQEMAAAGFYFTGVKSGIQCFCCSLILFGAGLTRLPIDHKRF 120
Qy      121 HPDCGFLNKDVGNIAKYDIRVKNLKSRLRGKMRYYOEERLASFRNMPFYVGISPCV 180
Db      121 HPDCGFLNKDVGNIAKYDIRVKNLKSRLRGKMRYYOEERLASFRNMPFYVGISPCV 180
Qy      181 LSEAGFVFTGKQDVTVOCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Db      181 LSEAGFVFTGKQDVTVOCFSCGCGCLGNWEEGDDPWKEHAKWPKCEFLRSKSSSEITQYI 240
Qy      241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVGVAALA 300
Db      241 QSYKGFVDITGEHFVNSWVQRELPMASAYCNDISIFAYEELRLDSFKDWPRESAVGVAALA 300
Qy      301 KAGLFYTGIKDIVOCFSCGCGCLEKWQEGDDPLDDHTRCFPNCPFLQNMKSSAEVTPDLOS 360
Db      301 KAGLFYTGIKDIVOCFSCGCGCLEKWQEGDDPLDDHTRCFPNCPFLQNMKSSAEVTPDLOS 360

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Db      661 FDDVAVFKSYMERLSLNKATAEILKATVSSCGELALKGFFSCCFEENDDDLAEAGVDED 720
QY      721 EDLTMLMSKFTAQRLRPFYRLSPAFOEFLAGMRLIELLSDROEHQDLGLYHLKQINS 780
Db      721 EDLTMLMSKFTAQRLRPFYRLSPAFOEFLAGMRLIELLSDROEHQDLGLYHLKQINS 780
QY      781 PMMTVSAYNFNFLNVSSLPSTKAGPKIVSHLHLVDNKESENENISSENDYLLKHQPEISLQ 840
Db      781 PMMTVSAYNFNFLNVSSLPSTKAGPKIVSHLHLVDNKESENENISSENDYLLKHQPEISLQ 840
QY      841 MQLRLGLWQICPQAYFSMVSEHLVLALKTAYQSNNTVAACSPVLOQLQGRITLIGALNTL 900
Db      841 MQLRLGLWQICPQAYFSMVSEHLVLALKTAYQSNNTVAACSPVLOQLQGRITLIGALNTL 900
QY      901 QYFDPHPESSLRSIHPIRGKNTSPRAHFSVLETCFDPKSQVPTIDQDYASAFEPNMEW 960
Db      901 QYFDPHPESSLRSIHPIRGKNTSPRAHFSVLETCFDPKSQVPTIDQDYASAFEPNMEW 960
QY      961 ERNLAEKEDNVKSYMOMORASPDLSGTGWLSPKQYKICPLEVDVNDIDVVGQDMLIEL 1020
Db      961 ERNLAEKEDNVKSYMOMORASPDLSGTGWLSPKQYKICPLEVDVNDIDVVGQDMLIEL 1020
QY      1021 MTYFSASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELSAAEQELLLTLPSE 1080
Db      1021 MTYFSASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELSAAEQELLLTLPSE 1080
QY      1081 SLEVSGTIOQDQIFPNLDKFLCKELSVLEGNINVSFVLPBEFPNFHMEKLLIQISA 1140
Db      1081 SLEVSGTIOQDQIFPNLDKFLCKELSVLEGNINVSFVLPBEFPNFHMEKLLIQISA 1140
QY      1141 EYDPSKLVKLIQNSPNLHVHFLKCNFSDPSGLMTMLVSCCKLTEIKESDSFFQAVPFA 1200
Db      1141 EYDPSKLVKLIQNSPNLHVHFLKCNFSDPSGLMTMLVSCCKLTEIKESDSFFQAVPFA 1200
QY      1201 SLNPFISLKLINLEGOQFPDEETSEKFAIILGSLNLEELILPTGDGIYRAKLIIOQCQ 1260
Db      1201 SLNPFISLKLINLEGOQFPDEETSEKFAIILGSLNLEELILPTGDGIYRAKLIIOQCQ 1260
QY      1261 QLHCLRVLSFEKTLNDSVVEIAKVAISGFGOKLENLKLINHKITEGGRNFPQALDNM 1320
Db      1261 QLHCLRVLSFEKTLNDSVVEIAKVAISGFGOKLENLKLINHKITEGGRNFPQALDNM 1320
QY      1321 PNLQELDISRHTECIRKQATTVKSISQCVLRPLRLRLNMLSWLADADIALNVMKER 1380
Db      1321 PNLQELDISRHTECIRKQATTVKSISQCVLRPLRLRLNMLSWLADADIALNVMKER 1380
QY      1381 HPQSKYLTLQKWLFPSPITQK 1403
Db      1381 HPQSKYLTLQKWLFPSPITQK 1403

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RESULT 4
US-09-841-739-9
; Sequence 9, Application US/09841739
; Patent No. US20020034784A1
; GENERAL INFORMATION:
; APPLICANT: Bertin, John
; TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THERE
; FILE REFERENCE: 07334-329001
; CURRENT APPLICATION NUMBER: US/09/841,739
; CURRENT FILING DATE: 2001-08-29
; PRIOR APPLICATION NUMBER: US 09/697,089
; PRIOR FILING DATE: 2000-10-26
; PRIOR APPLICATION NUMBER: US 60/161,822
; PRIOR FILING DATE: 1999-10-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 9
; LENGTH: 782
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-841-739-9

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Query Match      54.3%; Score 3970.5; DB 9; Length 782;
Best Local Similarity 93.6%; Pred. No. 3.5e-308;
Matches 779; Conservative 1; Mismatches 1; Indels 51; Gaps 1;

QY      451 EPLVLPVEFGNLSVMCVGEAGSGKTVLLKKIAFLWASGCCPLNRFQLVFYLSSSTR 510
Db      1 EPLVLPVEFGNLSVMCVGEAGSGKTVLLKKIAFLWASGCCPLNRFQLVFYLSSSTR 60
QY      511 PDEGLASIIICDQLLEKGSVTMCMENIIQQLKNQVFLLDYKEICSIPOVIGKLIQKN 570
Db      61 PDEGLASIIICDQLLEKGSVTMCMENIIQQLKNQVFLLDYKEICSIPOVIGKLIQKN 120
QY      571 HLSRTCLLIAVRTNARDIRRYLETILEIKAPRYNTVCILRKLFSHNMTRLRKEMVFG 630
Db      121 HLSRTCLLIAVRTNARDIRRYLETILEIQAFPPYNTVCILRKLFSHNMTRLRKEMVFG 180
QY      631 KNQSLQKIQTPLFVAACIAHWFQYPPDPSFDVAVFKSYMERLSLNKATAEILKATVS 690
Db      181 KNQSLQKIQTPLFVAACIAHWFQYPPDPSFDVAVFKSYMERLSLNKATAEILKATVS 240
QY      691 SCGELALKGFFSCCFEENDDDLAEAGVDEDEDITMCLMSKFTAQRLRPFYRLSPAFOEF 750
Db      241 SCGELALKGFFSCCFEENDDDLAEAGVDEDEDITMCLMSKFTAQRLRPFYRLSPAFOEF 300
QY      751 LAGNRLIELLSDROEHQDLGLYHLKQINSPMMTVSAYNFNFLNVSSLPSTKAGPKIVSH 810
Db      301 LAGNRLIELLSDROEHQDLGLYHLKQINSPMMTVSAYNFNFLNVSSLPSTKAGPKIVSH 360
QY      811 LHLVDNKESENENISENDYLLKHQPEISLQMLRLGLWQICPQAYFSMVSEHLVLALKT 870
Db      361 LHLVDNKESENENISENDYLLKHQPEISLQMLRLGLWQICPQAYFSMVSEHLVLALKT 420
QY      871 AVQSNNTVAACSPFVLQFLQGRITLIGALNLQYFDPHPESSLRSIHPIRGKNTSPRAH 930
Db      421 AVQSNNTVAACSPFVLQFLQGRITLIGALNLQYFDPHPESSLRSIHPIRGKNTSPRAH 480
QY      931 FSVLETCFDPKSQVPTIDQDYASAFEPNMEWERNLAEKEDNVKSYMOMORASPDLSGTW 990
Db      481 FSVLETCFDPKSQVPTIDQDYASAFEPNMEWERNLAEKEDNVKSYMOMORASPDLSGTW 540
QY      991 KLSPKQYKIPCLEVDVNDIDVVGQDMLIELMTVFSAQRIELHLNHSRGFIESIRPALEL 1050
Db      541 KLSPKQYKIPCLEVDVNDIDVVGQDMLIELMTVFSAQRIELHLNHSRGFIESIRPALEL 600
QY      1051 SKASVTKCSISKLELSAAEQELLLTLPSSLESLEVSGTIOQDQIFPNLDKFLCKELSV 1110
Db      601 SKASVTKCSISKLELSAAEQELLLTLPSSLESLEVSGTIOQDQIFPNLDKFLCKELSV 660
QY      1111 LEGNINVSFVLPBEFPNFHMEKLLIQISAEYDPSKLVKLIQNSPNLHVHFLKCNFSD 1170
Db      661 LEGNINVSFVLPBEFPNFHMEKLLIQISAEYDPSKLVKLIQNSPNLHVHFLKCNFSD 697
QY      1171 GSLMTMLVSCCKLTEIKESDSFFQAVPFAVSLNPFISLKLINLEGOQFPDEETSEKFAI 1230
Db      698 -----VASLPNFIISLKLINLEGOQFPDEETSEKFAI 729
QY      1231 LGSLSNLEELILPTGDGIYRAKLIIOCCQQLHCLRVLSFKTINDSVVEI 1282
Db      730 LGSLSNLEELILPTGDGIYRAKLIIOCCQQLHCLRVLSFKTINDSVVEI 781

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RESULT 5
US-10-449-315-9
; Sequence 9, Application US/10449315
; Publication No. US20030190679A1
; GENERAL INFORMATION:
; APPLICANT: Bertin, John
; TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THERE
; FILE REFERENCE: 07334-329001
; CURRENT APPLICATION NUMBER: US/10/449,315
; CURRENT FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US /09/841,739

```

1 PRIOR FILING DATE: 2001-08-29
1 PRIOR APPLICATION NUMBER: US 09/697,089
1 PRIOR FILING DATE: 2000-10-26
1 PRIOR APPLICATION NUMBER: US 60/161,822
1 PRIOR FILING DATE: 1999-10-27
1 NUMBER OF SEQ ID NOS: 16
1 SOFTWARE: FastSeq for Windows Version 4.0
1 SEQ ID NO 9
1 LENGTH: 782
1 TYPE: PRT
1 ORGANISM: Homo sapiens
US-10-449-315-9

Query Match 54.3%; Score 3970.5; DB 14; Length 782;
Best Local Similarity 93.6%; Pred. No. 3.5e-308;
Matches 779; Conservative 1; Mismatches 1; Indels 51; Gaps 1;

QY 451 EPLVLPVFGNLSVNCVEGEAGSGKTVLLKKIAFIWASGCCPLNRFQLVFLYSISSTR 510
DB 1 EPLVLPVFGNLSVNCVEGEAGSGKTVLLKKIAFIWASGCCPLNRFQLVFLYSISSTR 60
QY 511 PDEGLASIIICDQLEKEGSVTEMCNRNIIQQLKNQVLFLLDDYKEICSIPOVIGKLIQKN 570
DB 61 PDEGLASIIICDQLEKEGSVTEMCNRNIIQQLKNQVLFLLDDYKEICSIPOVIGKLIQKN 120
QY 571 HLSRTCLLIIVRTNRADIRRYLETILEIKAFPFYNTVCILRKLFSHNMTLRKFMVYFG 630
DB 121 HLSRTCLLIIVRTNRADIRRYLETILEIKAFPFYNTVCILRKLFSHNMTLRKFMVYFG 180
QY 631 KNGSLQKIQKTPLFVAICAHWFOYPRDPSFDDVAVFKSYMERLSLRNKATAELKATVS 690
DB 181 KNGSLQKIQKTPLFVAICAHWFOYPRDPSFDDVAVFKSYMERLSLRNKATAELKATVS 240
QY 691 SCGELALKGFFSCCFEFPDDDLAEAGVDEDEDLTMCMSKETAQRIRLPFYRFLSPAQEF 750
DB 241 SCGELALKGFFSCCFEFPDDDLAEAGVDEDEDLTMCMSKETAQRIRLPFYRFLSPAQEF 300
QY 751 LAGMRLEILLDSDRQEHODLGLYHLKQINS PMTVSA YNNFLNYVSSL PSTKAGPKIVSH 810
DB 301 LAGMRLEILLDSDRQEHODLGLYHLKQINS PMTVSA YNNFLNYVSSL PSTKAGPKIVSH 360
QY 811 LHLVDNKESENLENISENDYLLKHQPEISLQMLRGLMQICPOAYFSMVSEHLLVLALKT 870
DB 361 LHLVDNKESENLENISENDYLLKHQPEISLQMLRGLMQICPOAYFSMVSEHLLVLALKT 420
QY 871 AYQSNVVAACSPFVLPQGRITLTGALNLQYFFDHPESLSLRSHFPIRGNKTSBRAH 930
DB 421 AYQSNVVAACSPFVLPQGRITLTGALNLQYFFDHPESLSLRSHFPIRGNKTSBRAH 480
QY 931 FSVLETCPDKSQVPTIDODYASAFEPNMEWERNLAEKEDNVKSYMOMORRASPDLSTGYW 990
DB 481 FSVLETCPDKSQVPTIDODYASAFEPNMEWERNLAEKEDNVKSYMOMORRASPDLSTGYW 540
QY 991 KLSPKQYKIPCLEVDVNDIDVVGQDMLEILMTVFSASQRIELHLNHSRGFIESIRPALEL 1050
DB 541 KLSPKQYKIPCLEVDVNDIDVVGQDMLEILMTVFSASQRIELHLNHSRGFIESIRPALEL 600
QY 1051 SKASVTKCSISKLELSAAEQELLTLPSSLESLEVSGTIIQSQDIFFPNLDKFLCLKELSYD 1110
DB 601 SKASVTKCSISKLELSAAEQELLTLPSSLESLEVSGTIIQSQDIFFPNLDKFLCLKELSYD 660
QY 1111 LEGNINVFSVIPEEPNFHMEKLLIQISAEYDPSKVLKLIQNSPNLHVFLKCNFSPDF 1170
DB 661 LEGNINVFSVIPEEPNFHMEKLLIQISAEYDPSKL----- 697
QY 1171 GSLMTLVSCKLTETIKFSDSFFQAVPVAASLPNFISLKIILNLEGQQPFDEETSEKAYI 1230
DB 698 -----VASLPNFISLKIILNLEGQQPFDEETSEKAYI 729
QY 1231 LGSLSNMEELILPTGDIYRVAKLIIOQCQQLHCLRVLSFFKTLNDSVVEI 1282
DB 730 LGSLSNMEELILPTGDIYRVAKLIIOQCQQLHCLRVLSFFKTLNDSVVEI 781

RESULT 6
US-10-029-386-33707
1 Sequence 33707, Application US/10029386
1 Publication No. US20030194704A1
1 GENERAL INFORMATION:
1 APPLICANT: Penn, Sharon G.
1 APPLICANT: Rank, David R.
1 APPLICANT: Hanzel, David K.
1 TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR GI
1 FILE REFERENCE: AEOMICA-X-2
1 CURRENT APPLICATION NUMBER: US/10/029,386
1 CURRENT FILING DATE: 2001-12-20
1 NUMBER OF SEQ ID NOS: 34288
1 SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
1 SEQ ID NO 33707
1 LENGTH: 385
1 TYPE: PRT
1 ORGANISM: Homo sapiens
1 FEATURE:
1 OTHER INFORMATION: MAP TO U80017.1
1 OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.91
1 OTHER INFORMATION: SWISSPROT HIT: Q13075, EVALU0.00e+00
US-10-029-386-33707

Query Match 27.0%; Score 1975; DB 14; Length 385;
Best Local Similarity 100.0%; Pred. No. 5.2e-149;
Matches 385; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 707 FNDDDLAEAGVDEDEDLTMCMSKETAQRIRLPFYRFLSPAFOEFLAGMRLEILLDSRQ 766
DB 1 FNDDDLAEAGVDEDEDLTMCMSKETAQRIRLPFYRFLSPAFOEFLAGMRLEILLDSRQ 60
QY 767 HQDLGLYHLKQINS PMTVSA YNNFLNYVSSL PSTKAGPKIVSHLHLVDNKESENISE 826
DB 61 HQDLGLYHLKQINS PMTVSA YNNFLNYVSSL PSTKAGPKIVSHLHLVDNKESENISE 120
QY 827 NDDYLLKHQPEISLQMLRGLMQICPOAYFSMVSEHLLVLALKTAYQSNVVAACSPVLO 886
DB 121 NDDYLLKHQPEISLQMLRGLMQICPOAYFSMVSEHLLVLALKTAYQSNVVAACSPVLO 180
QY 887 FLOGRITLTGALNLQYFFDHPESLSLRSHFPIRGNKTSBRAHFSVLETCPDKSQVPTI 946
DB 181 FLOGRITLTGALNLQYFFDHPESLSLRSHFPIRGNKTSBRAHFSVLETCPDKSQVPTI 240
QY 947 DDYASAFEPNMEWERNLAEKEDNVKSYMOMORRASPDLSTGYWKLSPKQYKIPCLEVDV 1006
DB 241 DDYASAFEPNMEWERNLAEKEDNVKSYMOMORRASPDLSTGYWKLSPKQYKIPCLEVDV 300
QY 1007 NDIDVVGQDMLEILMTVFSASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELS 1066
DB 301 NDIDVVGQDMLEILMTVFSASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELS 360
QY 1067 AAEQELLTLPSSLESLEVSGTIIQSQ 1091
DB 361 AAEQELLTLPSSLESLEVSGTIIQSQ 385

RESULT 7
US-09-841-739-11
1 Sequence 11, Application US/09841739
1 Patent No. US20020034784A1
1 GENERAL INFORMATION:
1 APPLICANT: Bertin, John
1 TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THEREO
1 FILE REFERENCE: 07334-329001
1 CURRENT APPLICATION NUMBER: US/09/841,739
1 CURRENT FILING DATE: 2001-08-29
1 PRIOR APPLICATION NUMBER: US 09/697,089
1 PRIOR FILING DATE: 2000-10-26
1 PRIOR APPLICATION NUMBER: US 60/161,822
1 PRIOR FILING DATE: 1999-10-27


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Db      541 SFSDLNKQAITDLGTGFSSASSLQIQKRCAGVAGSLSLVSTCKNIYSLEHVDASDLTVV      ||||| :|||
Qy      1013 GQDMLEIL--MTVFS---ASQRIELHLMNS-----RGFIESIRPALELSKASVTK----- 1057
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      601 GEDHLTVTNLTIVLSIHDLASQRLGEGGLTDSLGNMKLIELIRDALELSENSAIKLAEGL 660
Qy      1058 -----CSISKELSAEAOELLTLPLSLES---LE-----VSGTIQSDQIIPNL 1098
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      661 KNLKKMCLISLELSAAGEGLLIVKSLSSSEPCDIEIQLVSCCLVAGAVQILAQLHNL 720
Qy      1099 DK--FLCLKELSVDLGNINVSFVPEEPNFHMEKLLIQISAEYDPSKLVKLIQNSPN 1156
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      721 VKLSILDLSLSVDLDGNIAVHSVTPDEFNVLEQLTALLQIGADV----- 767
Qy      1157 LHVFLKCNFFSDGSLMTMLVSCCKLTEIKFSDSFFQAVPFVASLPNFISLKIINLEGO 1216
      ||| :|
Db      768 -----GSLSSL-----VASLEEVISLVILGLEGO 791
Qy      1217 QFPDEETSEKPAYI-LGSLSNLEELILPTGD-----GIYRVAKL----- 1254
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      792 QLTDEISILGAFIGLSLSNLEELILAGDVSSDGLAFMGVEVAKLLVFPDSTKEF 851
Qy      1255 -----IIQQCQQLHCLRLVLSFPKT-----LNDGSVEIAKVAISGGFQ 1292
      :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      852 LPDPALVQQLSQV--LSVLSTLQIARLVGMQLDDDSV-----VITGAFK 894
```

```

RESULT 9
US-10-029-386-33933
; Sequence 33933, Application US/10029386
; Publication No. US20030194704A1
; GENERAL INFORMATION:
; APPLICANT: Penn, Sharon G.
; APPLICANT: Rank, David R.
; APPLICANT: Hanzel, David K.
; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR G
; FILE REFERENCE: AEOMICA-X-2
; CURRENT APPLICATION NUMBER: US/10/029,386
; CURRENT FILING DATE: 2001-12-20
; NUMBER OF SEQ ID NOS: 34288
; SOFTWARE: Anomax Sequence Listing Engine vers. 1.1
; SEQ ID NO 33933
; LENGTH: 203
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: MAP TO AC005031.1
; OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.6
; OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 0.95
; OTHER INFORMATION: SWISSPROT HIT: Q13075, EVALUAE 1.00e-112
US-10-029-386-33933
```

```

Query Match      14.2%; Score 1037; DB 14; Length 203;
Best Local Similarity 100.0%; Pred. No. 2.1e-74;
Matches 203; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      389 MAGGEAQMFOEAKNULNEQLRAAYTSASFRHMSLIDISSDLATDHLGCDLSIAASKHISKP 448
      |||||
Db      1  MAGGEAQMFOEAKNULNEQLRAAYTSASFRHMSLIDISSDLATDHLGCDLSIAASKHISKP 60
Qy      449 VQEPFLVLPVFGNLSVMCVGEAGSGKTVLKKIAFLMASGCCDLLNRFQLVFYLSS 508
      |||||
Db      61  VQEPFLVLPVFGNLSVMCVGEAGSGKTVLKKIAFLMASGCCDLLNRFQLVFYLSS 120
Qy      509 TRPDEGLASIIICDQLLEKEGSVTENCMRNIIQQLKNQVFLFLDDYKEICSIPOVYIGKLIQ 568
      |||||
Db      121 TRPDEGLASIIICDQLLEKEGSVTENCMRNIIQQLKNQVFLFLDDYKEICSIPOVYIGKLIQ 180
Qy      569 KNLHLSRTCLLIARTNRARDIR 591
      |||||
Db      181 KNLHLSRTCLLIARTNRARDIR 203
```

```

RESULT 10
US-09-841-739-5
; Sequence 5, Application US/09841739
; Patent No. US20020034784A1
; GENERAL INFORMATION:
; APPLICANT: Bertin, John
; TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THEREO
; FILE REFERENCE: 07334-329001
; CURRENT APPLICATION NUMBER: US/09/841,739
; CURRENT FILING DATE: 2001-08-29
; PRIOR APPLICATION NUMBER: US 09/697,089
; PRIOR FILING DATE: 2000-10-26
; PRIOR APPLICATION NUMBER: US 60/161,822
; PRIOR FILING DATE: 1999-10-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for windows Version 4.0
; SEQ ID NO 5
; LENGTH: 1204
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-841-739-5
```

```

Query Match      9.0%; Score 661; DB 9; Length 1204;
Best Local Similarity 23.5%; Pred. No. 4.4e-43;
Matches 268; Conservative 199; Mismatches 427; Indels 245; Gaps 43;

Qy      341 NCPFLQNMK-SAEVTPD--LQSRGELCELLETTSSESNLEDSIAVGPIVPEMAQGEAQM 396
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      216 NYPLFQDLNGSFEEQTQNMWPFNITSSLIGLPHQTSSEGLD----- 257
Qy      397 FOEAKNULNEQLRAAYTSASFRHMSLIDISSDLATDHLGCDLSI--ASKHISKV--- 449
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      258 -----LAQDLKDLVHTPSPFLNF-----YPLGEDIDIIFNLKSTFTEPVLMRK 299
Qy      450 -----QEPFLVPEFGNLSVMCVGEAGSGKTVLKKIAFLMASGCCPLNRFQLVFY 503
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      300 DQHHHREQLTLNGLLQALQSPCIIEGESGKSTLLQRIAMLWSSGCKALTKKFFVF 359
Qy      504 LLSSTRPDEGLASIIICDQLLEKEGSVTENCMRNIIQQLKNQVFLFLDDYKEICSIPO-- 561
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      360 LRLS--RAQGGFETLCDQLDIPGTIRKQTFAMMLKLRQRYVFLLDGYNEF--KPQNC 415
Qy      562 -VIGKLIQKNHLSRTCLLIARTNRARDIRRYLETILEIKAFPEYNTVCILRKLFESHNMT 620
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      416 PEIEALIKENHRFKNMVIVTTTECLRHIRQFGALTAEVGDMTEDSAQALIREVLIKELA 475
Qy      621 RLRFMYVFGKNSLQIKQTEFLVAAICAHWFQYFPDPSFDVAVFKSYMERLSLRNK- 679
      :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      476 --EGLLQIQKSRCLRLNLMKTPFLFVITCAIQMGSESEFHSHTQTTLFHTFYDLIQKNKH 533
Qy      680 -----ATAEILKATVSSCGELALKGFFSCCFEFDNDDLAAGVDEDEDLTMCMSKPTAQ 734
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      534 KHGVAASDFIR-SLDHCGDLALBGFVSHKPFDELQDV--SSVNEVDVLLTTGLCKYTAQ 590
Qy      735 RLRFYRFLSPAQOEFLAGMRLIELDSRQEHQDLGLYHLKQINSRPMTVSAYNNFLNY 794
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      591 RFPKPKYKFHKSFOEYTAGRRSLSLTSHPEEYTKGNGYLQKNVISIDITSYSSLLRY 650
Qy      795 V---SLPSTKAGPKIVSHLHLVDN-----KESLENISENDVYLKHQPEI 837
      |:||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      651 TCGSSVEATRA---VMKHLAAVYQHGCCLGLSLAKRPLMRQESLQSVKN----- 696
Qy      838 SLQMQLRLGLWQICPOAYFSVNSEHLLVLALKTAYQSN--VAACSPFLVQLQFLOGRTLTG 896
      :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      697 TTEQELIKAI-----NINSFVECGIHL-----YQESTSKSALSQFEAFPOGSLYIN 744
Qy      897 ALNL-QYFPDHESSLSLRSIHPIRGNKTSBRAHFSVLETCFDPKSQVPTIDODYASAFE 955
      :||| :||| :||| :||| :||| :||| :||| :||| :||| :||| :|||
Db      745 SGNIPDYLF-----FPEHLPNC--ASALDFIKDPYGG-- 776
Qy      956 PMNEWERNLAEKEDNVKSYMDQRRASPDLSGTGWKLSPKQYKIP----- 1000
```

```
Db 777 AMASWE-----:|||: : : : |||
QY 1001 CLEVDVNDIDVVGQDMLIEMTVFSASQRIEHLNHSRGFIESIRPALEISKASVTKCSI 1060
Db 818 TLEVTLRDFSKLNKQDIRYLGKIFSSATSRLQIKRCAGVAGSLSLVSTCK-NIYSLMV 876
QY 1061 SKLELSAABQELLTLTPSLESLEVSCTIQSDQIFPN--LDKFLCLKELSVLDLEGNINVF 1118
Db 877 EASPLTIEDERHITSVTNKLTLISIH--DLQNQRLPGGLTDSLGNLKNLTKLIMDNIM- 932
QY 1119 SVIPEEFNFHMEKLLIQISAEDPSKLVKLIQNSPNLHVFLKCNFSDFGSLMTMLV 1178
Db 933 -----NEEDAIKLAEGKLNKKMCLFHL--THLSDIGEMDIYIV 969
QY 1179 S-----CKLTEIKFSDSFF--QAVPFVA-SLPNFI SLKILNLEGOQFPDEETSEKPAY 1229
Db 970 KSLSEPC-DLEIQLVSCCLSANAVKILAQNLHNLVKLSITDL-SENYLEKDGNEALHE 1027
QY 1230 ILGSLSNLEE--LILPTGDIYRVAKLIIQQCQQLHCLRVLSFFKTLNDSVEIAKVA 1286
Db 1028 LIDRMNVLEQLTALMLPMGCDVQGSLSLLKHLBEVPQLVKLGKMWRLTDT-----EIR 1082
QY 1287 ISGF-----QKLENLKL SINHKITEEGYRNFQALDNMNPLOELDISRHTECIKAQA 1340
Db 1083 ILGAFGKNPLKNFQQLNLAGN-RVSSDGMWLAFMGVFENLKQLVFEDFS--TKEFLPDP 1138
QY 1341 TTVKSLSQCVLRPLRLIRLMLSWLBDADIALLNVMKERHPQSKYLTILQKWILPESP 1399
Db 1139 ALVRKLSQVLSKLTFLQEARLVGMQFDDDL SVITDEKAQ-----MICPWIKLIP 1189
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RESULT 11
US-10-449-315-5
; Sequence 5, Application US/10449315
; Publication No. US20030190679A1
; GENERAL INFORMATION:
; APPLICANT: Bertin, John
; TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THERE
; FILE REFERENCE: 07334-329001
; CURRENT APPLICATION NUMBER: US/10/449,315
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US /09/841,739
; PRIOR FILING DATE: 2001-08-29
; PRIOR APPLICATION NUMBER: US 09/697,089
; PRIOR FILING DATE: 2000-10-26
; PRIOR APPLICATION NUMBER: US 60/161,822
; PRIOR FILING DATE: 1999-10-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 1204
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-449-315-5
```

Query Match 9.0%; Score 661; DB 14; Length 1204;
Best Local Similarity 23.5%; Pred. No. 4.4e-43;
Matches 268; Conservative 199; Mismatches 427; Indels 245; Gaps 43;

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QY 341 NCPFLQNMK-SSAEVTPD---LQSRGELCELLTTSSESNLEDSTAVGPIVEMAQGEAQM 396
Db 216 NYPLFQDLNGQSFETQNMVFENITSSLLGLFHQTSBGDLDD----- 257
QY 397 FOEAKNLNEQLRAAYTSASFRHMSLLDISSDLATDHLGCDLSI---ASKHISKPV---- 449
Db 258 -----LAQDLKDLVHTPSFLNF-----YPLGEDIDIIIFNLKSTTEPVLWRK 299
QY 450 -----QEPLVLPVEFGNLSVWCVGEAGSGKTVLLKKIAFLMASGCCPLNRFQLVFY 503
Db 300 DQHHHRVEQLTLNGLLQALQSPCLIEGESGKSTLLQRIAMLMWGSCKKALTKFKFVF 359
QY 504 LSLSTRPDEGLASLIICDQLLEKEGSVTMCMENIIQQLKNQVLFLLDDYKEICSIPO-- 561
```

```
Db 360 LRLS--RAQGLFETLCDQLLDIPGTIRKQTFMAMLLKLRQRVFLLDGYNEF--KPQNC 415
QY 562 -VIGKLIQKNHLSRPTCLLI AVRTRNARDIRRYLETILEIKAFPPYNTVCILRKLFSHNMT 620
Db 416 PEIALIKENHRFNKMVIVTTTTECLRHIRQFAGALTAEVGDMEDSAQALIREVLIKELA 475
QY 621 RLKRMVYFGKNQSLQKIQKTPLEVAALCAHWFPYRPDPSFDVAVFKSYMERLSLRNK- 679
Db 476 --EGLLLIQKSRCLNLMKTPLEVVITCALQMGSESEFHSHTQTTLLFHTFYDLLIQKNKH 533
QY 680 -----ATAEILKATVSSCGELAKGFSCCFEFDNDDLAEAGVDEDEDLTMCIMSKFTAQ 734
Db 534 KHKGVAASDFIR-SLDHCGDLMEGVFSHKFDELDV--SSVNEVDVLLTTGLLCKYTAQ 590
QY 735 RLRFYRFLSPAFQEFAGMRILELSDRQEHQDLGLYHLKQINS PMMTVASAYNNFLNY 794
Db 591 RFKPKYKFFHKSFOEYTAGRILSSLTSHPEEYTKGNGYLQKMWISIDITSTYSSLLRY 650
QY 795 V--SLPSTKAGPKIVSHLHLVDN-----KESLENISENDYLLKHQPEI 837
Db 651 TCGSSVEATRA---VMKHLAAVYQHGLLGSLIAKRLPLWRQSLQSVKN----- 696
QY 838 SLQMQLRGWLQICPQAYFSWVSEHLVLALAKTAYQSN--VAACSPFVLQFLOGRTLLG 896
Db 697 TTEQELIKAI-----NINSFVECGIHL-----YQESTSKALSQEFEAFFQGSXYIN 744
QY 897 ALNL-QYFFDHESLSLRSIHPIRGNKTPRAHFSVLETCFQDKSQVPTTDQDYASAFE 955
Db 745 SGNI PDYLF-----FPEHL PNC--ASALDFIKLDFYGG-- 776
QY 956 PMNEWERNLAEKEDNVKSYMMDQRASPDISTGYWKLSPKQYKIP----- 1000
Db 777 AMASWE-----:|||: : : : |||
QY 1001 CLEVDVNDIDVVGQDMLIEMTVFSASQRIEHLNHSRGFIESIRPALEISKASVTKCSI 1060
Db 818 TLEVTLRDFSKLNKQDIRYLGKIFSSATSRLQIKRCAGVAGSLSLVSTCK-NIYSLMV 876
QY 1061 SKLELSAABQELLTLTPSLESLEVSCTIQSDQIFPN--LDKFLCLKELSVLDLEGNINVF 1118
Db 877 EASPLTIEDERHITSVTNKLTLISIH--DLQNQRLPGGLTDSLGNLKNLTKLIMDNIM- 932
QY 1119 SVIPEEFNFHMEKLLIQISAEDPSKLVKLIQNSPNLHVFLKCNFSDFGSLMTMLV 1178
Db 933 -----NEEDAIKLAEGKLNKKMCLFHL--THLSDIGEMDIYIV 969
QY 1179 S-----CKLTEIKFSDSFF--QAVPFVA-SLPNFI SLKILNLEGOQFPDEETSEKPAY 1229
Db 970 KSLSEPC-DLEIQLVSCCLSANAVKILAQNLHNLVKLSITDL-SENYLEKDGNEALHE 1027
QY 1230 ILGSLSNLEE--LILPTGDIYRVAKLIIQQCQQLHCLRVLSFFKTLNDSVEIAKVA 1286
Db 1028 LIDRMNVLEQLTALMLPMGCDVQGSLSLLKHLBEVPQLVKLGKMWRLTDT-----EIR 1082
QY 1287 ISGF-----QKLENLKL SINHKITEEGYRNFQALDNMNPLOELDISRHTECIKAQA 1340
Db 1083 ILGAFGKNPLKNFQQLNLAGN-RVSSDGMWLAFMGVFENLKQLVFEDFS--TKEFLPDP 1138
QY 1341 TTVKSLSQCVLRPLRLIRLMLSWLBDADIALLNVMKERHPQSKYLTILQKWILPESP 1399
Db 1139 ALVRKLSQVLSKLTFLQEARLVGMQFDDDL SVITDEKAQ-----MICPWIKLIP 1189
```

```
RESULT 12
US-10-156-733-2
; Sequence 2, Application US/10156733
; Publication No. US2003009969A1
; GENERAL INFORMATION:
; APPLICANT: Alnemri, Emad S.
; TITLE OF INVENTION: IPAF, AN ICE-PROTEASE ACTIVATING
; FILE REFERENCE: 480140.477
```

```

; CURRENT APPLICATION NUMBER: US/10/156,733
; CURRENT FILING DATE: 2002-05-24
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1024
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-156-733-2

```

Query Match	8.9%;	Score 654;	DB 14;	Length 1024;
Best Local Similarity	23.7%;	Pred. No. 1.2e-42;		
Matches 263;	Conservative 197;	Mismatches 410;	Indels 238;	Gaps 42;

[illegible]

QY	1180	-CKKLTETKFSDFSFF--QAVPFVA-SLEPNFISLKLINLEGQQFPDEETSEKFAVILGSL	1235
Dd	819	PC-DLEEIQLVSCCLSANAVKILAQNHLVKLSITDL-SENYLEKDGENEALHELIDRMN	876
QY	1236	NLEE---LILPTGDGIYRVAKLIIOCCQQLHCLRVLSEFKTLNDSDVEIAKVAISGGF-	1291
Dd	877	VLEQLTALMLPMWGCDDVQSLSLLKHLEEPQLVKLGKNWRRLTD-----EIRILGAFF	931
QY	1292	-----QKLENLKLSINHKTTEGYRNFQALDNMPNLQELDISRHFTTECIKAQATTVKSL	1346
Dd	932	GKNPLKNPQOLNLAGN-RVSSDGWLAFMGVFENLKQLVFEDFS---TKFELDPALVRKL	987
QY	1347	SQCVRLEPRLIRLNMLSWLLDADDIALL	1374
Dd	988	SQVLSKLTFLQEARLVGMQFDDDLSTI	1015

RESULT 13

```

; Sequence 49, Application US/10221097
; Publication No. US20030144476A1
;
; GENERAL INFORMATION:
; APPLICANT: Agarwal, Pankej
; APPLICANT: Murdock, Paul R.
; APPLICANT: Rizvi, Safia K.
; APPLICANT: Smith, Randall F.
; APPLICANT: Xiang, Zhaoying
; TITLE OF INVENTION: NOVEL COMPOUNDS
; FILE REFERENCE: GP50016
; CURRENT APPLICATION NUMBER: US/10/221,097
; CURRENT FILING DATE: 2002-09-06
; PRIOR APPLICATION NUMBER: PCT/US01/07143
; PRIOR FILING DATE: 2001-03-05
; PRIOR APPLICATION NUMBER: 60/187,107
; PRIOR FILING DATE: 2000-03-06
; PRIOR APPLICATION NUMBER: 60/236,874
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/188,916
; PRIOR FILING DATE: 2000-03-13
; PRIOR APPLICATION NUMBER: 60/237,846
; PRIOR FILING DATE: 2000-10-03
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 49
; LENGTH: 1070
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-221-097-49

```

	Query Match	8.9%	Score 654;	DB 14;	Length 1070;	
	Best Local Similarity	23.3%	Pred. No. 1.3e-42;			
	Matches	282;	Conservative 213;	Mismatches 454;	Indels 260;	Gaps 48;

QY	277	YEELRLD----	SFKDWPRESAVGVAALAKAGLFYTGIKIVQCFCSCGGCLEKEWQEGDDP	331
		: :	: : :	: : :
Db	2	YKSLNIDECDLHAWLDPAAEKPLGVVNRV-----	CWGFI-RPKGYMP	43
QY	332	LD-----DHTRCFPNCPFLONMKSSA--EVTDDL-----QSRGEL-----CELETTSES	374	
		: : : :	: : : : : : :	
Db	44	IDYLNFIKDNSRA----LIQRMGMTVIKQITDDLFWNVNLNREEVNIIICERKEVEQDAAR	98	
QY	375	NLEDIAVGPIVEPMAGGEAQWFQEAKNINEQLRAAYTSASFRHMSLLDISGLATD---	431	
		: - : : : : : :		
Db	99	GI-----IHMLKKGSSECNLFKLSKENWRYPLFQDLNGSLFHQTSEGDDLDAQDLKD	153	
QY	432	-----HLIGCDLSI---ASKHISKPV-----QEPLVLPEVFGNLSVMCV	468	
		: : :	: : : : : :	
Db	154	LHTPSFLNFYPPLGEDIDIIFNLKSTFTPELVLMRKDQHHRVEQLTLINGLQALQSPTII	213	
QY	469	EGEAGSGKTVLLKKIAFLMASGCCPLNRFQLVFYLSLSSSTRPDEGLASTICDQLLEKEG	528	
		: : : : : : : : :		
Db	214	EGESGKGSTLLQRIAMLMGSGCKALKTKKFVFFLRIS--RAQGGLFETLCDQLLDIPG	271	

QY	529	SVTEMCMRNIIOQLKNQVLFLLDDYKEICSIPO--VIGLIIQKNHSRTCLLIAVRNR	585
Db	272	TIRKQTFMAMLLKLRQVLFLLDGYNEF--KPCNCPETBALIKENHFRKMWIVITTEEC	329
QY	586	ARDIRRYLETILEIKAFPEFYNTVCIRKLFSHNMTRLRKFMVYFGKNQSLQIKQTPLFV	645
Db	330	LRIHQFQALTAEVGDMTEDSAQALIREVLIKELA--EGLLIQIQSRCLRMKTPLFV	387
QY	646	AAICAHMFQYPPFDSFDDVAVFKSJWERLSLRNK-----ATAEILKATVSSCGELALKG	699
Db	388	VITCAIQMGSESEFHSHTQTTLFHTFYDLLIQKNKHKGVAASDFIR-SLDHCGDALLEG	446
QY	700	FFSCCFEFNDDDLAEAGVDEDEDLTMCLMSKFTAQRLRPFYRFLSPAQOEFLAGMRLEL	759
Db	447	VEFHKEFDELQDV--SSVNEDEVLLTGILCKYTAQRPKPKYKFFHKSFOEYTAGRRSSL	504
QY	760	LDSDRQEHQDGLYLHKQINSPMMYVAYNNFLNYV--SSLPSTKAGPKIVSHLHLVDN	817
Db	505	LTSHEPEEVTKNGYLIQKMSISDITSTYSSLRYTCGSSVEATRA--VMKHLAAVYQH	561
QY	818	-----KESLENISENDYLLKHQPEISLOMQLRGIMQICPOAYFSMVSEH	862
Db	562	GCLIGLSIAKRPMLRQESLSQVKN-----TTEQEIILKAI---NINSFVEGCIH	606
QY	863	LVLVALKTAYQNT--VAACSPFVLOFLQRTLTGALNL-QYFFDHESSLRLRSIHPI	920
Db	607	L-----YQESTKSALSQEFFAFFQKSLYINSGNIPDYLFD-----	643
QY	921	RGNKTSBRAHFSVLETCFDKSQVPTIIDQYASAFEPNMENWERNLAEKEDNVKSYMQR	980
Db	644	-----FHEHLNCC--ASALDFIKLDFYGC--AMASWE-----K	672
QY	981	ASPDLSGTGMYKLSPPKQYKIP-----CLEVDNDIDVYGQDMLIELMTVFS	1022
Db	673	AAEDTGGIHMEEAPEYTY-IPSRASVLFENWKQEFRLEVTLRDFSKLNKQDIRYLKIFS	731
QY	1026	ASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELSAAEQELLLTLPSSLESLEVS	1088
Db	732	SATSLRLQIKRCAGVAGSLSLVSTCK-NIYSLWEASPLTIEDERHITSVTNLKTLISIH	790
QY	1086	GTIQSODQIFPN--LDKFLCLKEISVDLEGNINVPFSVIPPEEFPNFHMEKLLIQISAEYD	1144
Db	791	---DLQNRQLPGGLTDSLGNLKNLTKLIMDNIKM-----NEED	825
QY	1144	PSKLVKLIONSPNLHVFLKCNFSPDFGSLMTMLVS-----CKKLTIEKPSDSFF--QA	1199
Db	826	AIRKLAEGLKNLKKMCLFHL--THLSDIGEMDYIVKXLSSEPC-DLEIQLVSCCUSANA	882
QY	1196	VPFVA-SLPNFIISKILNLBGQQFPEDEETSEKFAVILGSLNLSE--LILPTGDGIYRV	1255
Db	883	VKILAQNLHNLVKLSTLDL-SENYLEKDGNEALHELIDRMNVLEQUTALMLPWGCDVQGS	941
QY	1252	AKLIIOCCQOHLCLRVLSFKTILNDSVEIAKVAISGGF-----QKLENLKLSINHKI	1300
Db	942	LSLKLKLEEVQVLKGLKNWRLLDTJ---EIRILGAFGKPNLKNFQQLNLAGN-RV	995
QY	1306	TEEGYRNFFQALDNMPNLQELDISRHFTCECIKAQATTVKSLSQCVLRLPRLIRLNMLSWL	1366
Db	996	SSDGMWAFMGVFNELKQLVFPDES---TKEFLPDBALVRKLSQVLSKLTFLQEARLVGWQ	1053
QY	1366	LDADDIALL 1374	
Db	1053	FDDDL SVI 1061	

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RESULT 14
US-09-841-739-2
; Sequence 2, Application US/09841739
; Patent No. US20020034784A1
; GENERAL INFORMATION:
; APPLICANT: Bertin, John
; TITLE OF INVENTION: NOVEL MOLECULES OF THE CARD-RELATED PROTEIN FAMILY AND USES THEREOF

```

```

; FILE REFERENCE: 07334-329001
; CURRENT APPLICATION NUMBER: US/09/841,739
; CURRENT FILING DATE: 2001-08-29
; PRIOR APPLICATION NUMBER: US 09/697,089
; PRIOR FILING DATE: 2000-10-26
; PRIOR APPLICATION NUMBER: US 60/161,822
; PRIOR FILING DATE: 1999-10-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1024
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-841-739-2

```

Query Match	8.9%;	Score 653;	DB 9;	Length 1024;
Best Local Similarity	23.7%;	Pred. No. 1.5e-42;		
Matches 263;	Conservative 197;	Mismatches 410;	Indels 238;	Gaps 422;

```

QY      344 FLQNMKS -SAEVTPLDLSRGLCELLETTSSENLSDSIAGVPIVPEMAQGAQWFGQAKN 402
      ||::|| : : || : ||::||
Db      69 FLKSLKEMWYPLFODLNGO----SLFHTSGDGLDD----- 100

```

QY 403 INEQLRAYTSASFRRMSLLDISSDLATPHLIGCDLST---ASKHISKPV----- 449

```
Db      101 LAQDLKDLVHTPSFLNF-----YPLGEDIDILFNLKSTFTEPVLWRKDQHHR   148
```

QY 450 QEPVLPEVFGNLSVMCVGEAGSGKTVLLKIIAFLWASGCCPLNRFQLVFYLSLSST 509

```

db      149  VEQTLNGLIOLQSPCIIEGSGKGKSTLRIAMLMGSGKCKALTKFKFVFFRLS-- 206

```

510 RPDEGLASTICDÖLLEKEGVSITEMCMRNTIQOLKNQVLFLLDDYKEICSIPO--VIGKL 566

Db 207 RAQGGLETCDQLDIPGIRKQTFMAMLLKLRQRLFLDGYNEF--KPGNCPEIEAL 264

QY 567 IQKNHLSRCLLIAVRTNRARDIRRYLETILLIKAFPFYMWVCILRLKLFSHNNTRLRKFM 626

Db 265 IKENHRFKNNVI VTTTTECLRHIRQFGALTAEVGDMTEDSAQALIREVLIKEIA--EGLL 322

Qy 627 VFEGKNSLOKIÖKTPLFVAALCAHWFOYPPDFSEDDVAVEKSYMERTLSLNK-----A 680
:
:: : : : : : : : : : :
: : : : : : : : : : :

Db 323 LQIQSRCLNLMKTPLFVITCAIQMGSEEFHSHTQTTLFHTFYDLLIQNKHKHKGVA 382

681 TAEILKATYSSCGELALKGHFSSCCFEFNDDLLAAGVDEDEDDLTMCILMSKFTAQRLRPFY 740

383 ASDFIR-SUDHCDDLAEGVFSHKPDEFELQDV--SSVNEBVLTTGLCKRYAQRFKPKY 439

[illegible]

00	700	ВЕТЕРИНАРНИ И УПН	ВЕТЕРИНАРНИ КЛОДЕСИ ОМОИ	843
00	440	КЕФИКСФЕИ АГРКЛББШЕПЕВЕВАГНГЛЮКМВБШДШШБББЕРИ	КЕФИКСФЕИ АГРКЛББШЕПЕВЕВАГНГЛЮКМВБШДШШБББЕРИ	493

[illegible]

0v	844	IRGIWOICBOAYESMWEH.I.VI.AIKTAYOSNT-VVACSBEVT.OEI.OBERTT.TIGAI.NI.-O	301
2D	200	WAIKNA --- VHIUHTTAY I XHOCBGBD IATUNE DMKXDBDQV IUN	250

Db 546 IKAI-----NINSEVECGIHL-----YQESTSKSA-SQEEFAFFQCKSLYINSGNIPD 593

0Y 902 YFEDHPESILRSIHPIRGNKTSBRAHESVLETCFDPKSOVPTIDODYASAFEPMNEW 961

Db 594 YLFD-----FEEHL⁺PNC--ASALD⁺FIKLD⁺FGG--AMASWE 625

962 RNLAEKEDNVKSYMDMÖRRASPDLSGTGYKLSPKÖYKIP-----CLEVDV 1006

```
Db      626 -----::|||:
          KAADTCGIHNEAPETY-IPRAVSLFNNKQEFRTLEVTL 666
```

1007 NDIDVVGQDMLIELMTVPFSASQRIELHLNHSRGFIESIRPALELSKASVTKCSISKLELS 1066

Db 667 RDFS^{LN}QDITYLGIFFSSATSLRLQIKRCAGVAGSLVLSTCK-NIYSIMVEASPLT 725

1067 AAEQELLTLPSLESEVSGTIQSODQIPPN--LDKFLCKELSVDEGINVFSVIPPEE 1124

